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ADDRESS.

THE SOCIAL EVIL—SHOULD IT BE REGULATED? CAN IT BE EXTERMINATED?

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The subject for this evening's discussion is one entered into with considerable hesitation. The more the subject is studied the greater and more difficult does the question become. Philanthropists and moralists are in favor of an aggressive war of of extermination. City and government officials favor, as a rule, some sort of regulation; physicians are found on both sides of the controversy. That the subject is one of most vital importance, one which threatens our very existence as a healthy race, is evidenced by the fact that it has stamped nearly three millions of the people of these United States with syphilis. That the subject is of enough economic importance for the best thought of our legislative bodies is evidenced by the statement that the men in our cities pay to prostitutes $300,000,000 annually. This statement alone would seem of almost enough importance to cause the mathematic American to stop and call for an investigation; but there are other results far more disastrous. In order to present the different points of view of those who have opinions on this evil, it will be necessary to subdivide the matter into the following: 1. Causes; 2. Effects, *a*, destruction of morals; *b*, production of disease; *c*, production of degenerates; *d*, financial waste. 3. Remedies, *a*, regulation and taxation; *b*, prohibition.

CAUSES.

Fortunately, or perhaps unfortunately, there is little difference of opinion as to the causes of prostitution; the natural passion and inherent depravity of men and jealousy and love of dress and display, or poverty and desertion of women. Dr. Sanger in his work on prostitution, from which I shall quote quite extensively, says: "No nation has ever held its women generally in common. Still there appears to have been in every age men who did not avail themselves of the marriage covenant or who could not be bound by its stipulations, and their appetite created a demand for illegitimate pleasure which female weakness supplied." This vice which has existed and even flourished for 3,700 years or more has so fastened itself upon our own race that it might not be far out of the way to say that we have inherited it. A short sketch of its history will substantiate this. In the eighteenth century, B. C., we find the first authentic record of prostitution, when Judah, finding his daugter-in-law, Tamar, sitting in an open place with her face covered, mistook her for a harlot; for his pleasure she demanded a kid, which he promised, leaving his ring and bracelet as pledges (Gen. xxxviii). For several centuries prostitutes were allowed outside of Jerusalem and other cities, but were excluded from the cities themselves until the reign of Solomon, who was the first to open the gates of Jerusalem to them, after which time they multiplied so fast as almost to overrun the city. The Jews, while placing the severest penalties to prevent prostitutes among their race, did not attempt to prohibit the use of foreign prostitutes. I quote: "The city of Naucratis owed its wealth and fame to the beauty of its courtesans, whose reputation spread throughout Europe, and was much celebrated in Greece. Rhadopis led the life of a courtesan in Egypt with such success that she (if the stories of the Egyptians are to be believed) built a pyramid with her savings." "In Chaldæa, religion first connived at and then commanded prostitution. Every Babylonian female was obliged by law to prostitute herself once in her life in the temple of the Chaldæan Venus, whose name was Mylitta. Herodotus claims to have seen the park and grounds in which this singular sacrifice was made. They were constantly filled with women, with strings bound round their hair. Once inside the place no woman could leave it until she had paid her debt and deposited on the altar of the goddess the fee received from her lover. Some who were plain remained there as long as three years, but the young, the beautiful, the high-born seldom needed to remain over a few minutes." Among the Greeks this class of women seemed to be less degraded, and were often held in high esteem personally by the great poets and orators. "The Hetairæ were by far the most important class of women in Greece. They filled so large a place in society that the virtuous females were entirely thrown in the shade and it must have been quite possible for a chaste Athenian girl endowed with ambition, to look up to them and covet their splendid infamy. An Athenian matron was expected to live at home, she was not allowed to be present at the games or the theater. A Milesian prostitute named Thargelia accompanied Xerxes on his invasion of Greece. Some idea may be formed of the position in society occupied by prostitutes from the fact that Xerxes employed this woman as negotiator with the court of Thessaly. Fired by her success, another Milesian girl named Aspasia established herself at Athens. She set up a house of prostitution and peopled it with the most lovely girls of the Ionic cities. But wherein she differed from rivals and precessors was the prominence she gave to intellect in her establishment. She lectured publicly among her girls and their visitors, on rhetoric and philosophy and with such marked ability that she counted among her patrons and lovers the first men of Greece, including Socrates, Alcibiades and Pericles."

At Corinth the first-class hetairæ charged as high as a talent ($1,000) for a single night, while in the

temple of Venus a thousand young women (slaves) were kept, who were obliged to prostitute themselves for a single obolus (3 cents).

In Rome prostitution was licensed and taxed, and for a few centuries, by the will of the people, kept in check; but among the emperors themselves were almost the worst examples of debauchery found in history. "Caligula, who made some changes in the tax levied on prostitutes and established a brothel in the palace, commenced life by debauching his sister and ended it by giving grand dinners during which he would remove from the room any lady he pleased, and after spending a few minutes with her in private, return and give an account of the interview for the amusement of the company. Nero surpassed his predecessor in recklessness. He was a habitual frequenter of houses of prostitution. He dined in public at the great circus among a crowd of prostitutes. He founded, on the shore of the Gulf of Naples, houses of prostitution and filled them with females. Commodus converted the palace into a brothel. He kept in his pay 300 girls of great beauty and as many youths, and revived his dull senses by the sights of pleasures he could no longer share. Like Nero, he violated his own sister." Thus did the Roman emperors, with scarcely an exception, set examples of depravity which were, although perhaps to a lesser degree, followed by the rulers of Europe and England down to the present century. Henry VIII. and Francis I. were quite as bad as any monarchs in history. History for the past 1,500 years has enough of just such examples to show the extent to which this vice prevailed. With such examples among the rulers, what improvement could be expected among the lower classes?

Actual want seems to be responsible for a large increase in prostitution. Thousands of poor women work in large cities for less than $2 a week, on which they must live, feed, clothe, house and warm themselves and support others. The wages received by 2,000 women in New York prior to becoming prostitutes were as follows:

534 received, per week	$ 1.00
336 received, per week	2.00
230 received, per week	3.00
127 received, per week	4.00
68 received, per week	5.00
8 received, per week	7.00
5 received, per week	8.00
1 received, per week	20.00
1 received, per week	50.00
663 unknown.	

Five thousand one hundred and eighty-three prostitutes in Paris gave as the cause of their becoming such the following reasons.

Expulsion from home or desertion by parents	1,255
Desire to support old or infirm parents	37
Desire to support younger brother and sisters	29
Widows with children to support	23
Girls from the country to support themselves	280
Girls from the country brought by soldiers and students	404
Servants seduced by master and abandoned	289
Concubines abandoned by their lovers	1,425

In New York 2,000 women gave as the cause of their fall:

Inclination	513
Destitution	525
Seduced and abandoned	258
Drink	181
Ill treatment by parents or husbands	164
As an easy life	124
Bad company	84
Persuaded by prostitutes	71
Laziness	29
Violated	27
Seduced on emigrant ship	16
Seduced in emigrant boarding house	8

Two thousand of these women in New York give as their former occupation:

Artist, 1; school teacher, 3; boxmaker, 5; nurse, 1; fruit vender, 4; tobacco packer, 7; music store clerk, 8; shoe binder, 16, milliner, 59; attending school, 8; vest maker, 21; tailoress, 105; embroidery worker, 8; cap maker, 24; dress maker, 121; fur sewer, 8; book folder, 27; servants, 933; hat trimmer, 8; factory girls, 37; lived with parents or friends, 499; umbrella maker, 8; housekeeper, 39; flower maker, 9.

Thus over one-fourth were poor girls working at sewing or in shops where wages were a mere pittance. One-half were servants or housekeepers, employments of peculiar temptation either through the masters or boarders and guests. It was stated that in Rome in the early days nearly all servants were available for purposes of prostitution, and at the present time many large cities are reported to be little better. The large tenement houses where numbers of both sexes sleep in the same room is another frequent cause of prostitution. The report of the 2,000 girls in regard to education is another important item: 714 could read and write well, 546 could read and write imperfectly, 219 could read only, 521 totally uneducated. Of 3,103 prostitutes in London 1,773 could neither read nor write, 93 could read and write well, 1,237 could read and write imperfectly.

"M. M., a widow with one child, earned $1.50 a week as a tailoress. S. F., a widow with three children, earned $2 weekly at cap-making, but could not get steady employment even at those prices. M. F., a shirt-maker, earned $1 a week. M. G. struggled hard with the world before she became a prostitute, sleeping at station houses at night and living on bread and water during the day. The chief of police in that district said he had known of fifty cases similar to her's and who are now prostitutes." Nine-tenths of the children sent out from workhouses (in England) to do day work are eventually seduced and become prostitutes. Employment of young children in factories is another cause of great evil. *Three* hospitals in London reported that in eight years they had received 2,700 cases of venereal diseases in young children between the ages of 11 and 16. Obscene literature is another means by which the young are corrupted. One society in London destroyed in less than three years 13,000 books and prints.

EFFECTS.

a. Destruction of morals.—Young men once accustomed to indulgence in prostitution become morally dull; adultery seems an unimportant matter to them either as single or as married men; these liberal views later in life often affect their wives and adultery increases enormously. This latter evil has increased to such an extent in this country that it has been recently stated that there are 250,000 adulterous people in New York city, exclusive of the 40,000 prostitutes and their customers. On the continent poverty is a bar to the marriage contract, and as a result prostitution has been made easily obtainable and illegitimate children fill the lying-in-hospitals and foundling asylums. In France the decreased birth rate is calling forth the most serious legislative consideration.

This country has been praised as the land of small homes, and these small homes and home life must be made the means for most of the moral training and

education. What then is to become of us if nearly half of our population, while avoiding prostitution, practice adultery? Early marriages are not as common as formerly and abortion and infanticide are increasing to an alarming extent. The corrupt life of the Romans was largely responsible for the fall of the Roman empire!

b. A production of disease.—Syphilis was for many years wrongfully charged to our American Indians, who, it was claimed, infected the sailors of Columbus and the explorers. For many years it was the custom in France to whip patients with venereal disease, although prostitution was at the same time fostered in many ways. Today we have to deal with the fact that there are between 2,500,000 and 3,500,000 syphilitic people in this country. Specialists claim that 80 per cent. of the men in our large cities have venereal disease. That much of this is spread by clandestine prostitution and not wholly by regular prostitutes is a point of much importance. A girl of 14 years of age infected eleven men and boys living under the same roof in one of the crowded tenements of the poor.

The reports of the British army show a startling state of affairs: In 1866 what is known as the "Contagious Disease Act" was passed. Under this and subsequent acts "réglementation" was adopted for the entire army. In the army stationed in China there were 445 cases of venereal diseases for every 1,000 men. In other divisions the amount of disease varied from 49 to 500 per 1,000 men. The commanding officer was ordered in 1886 to "see that sufficiently numerous and sufficiently attractive prostitutes were provided for every cantonment in India, and that the quarters in which the women were lodged were sufficiently comfortable and attractive to satisfy the demands of both the women and the men." The increase of disease proportionate to the number of women allowed is of especial importance, as will be shown in the following report:

		Number of men to one prostitute.	Number cases of diseases per 1,000 men.
Number of stations . .	4	16.5	170
Number of stations . .	3	9.9	263
Number of stations . .	4	7.25	402
Number of stations . .	3	3.9	546

From this it appears that the more women the greater the indulgence and the more opportunity for the spread of disease.

c. Production of degeneration.—Tarnowsky, in a recent work, claimed that there are deformities and anomalies of the head, face and ears in 42 per cent. and defective teeth in 54 per cent. of the prostitutes. In addition to this physical degeneration their psychic degeneration is shown in feebleness of intellect, depraved taste and absence of moral sense. Their life is extremely short, the average life of a courtesan being placed at five years. In Paris 17½ per cent. of the prostitutes had lived as such ten years, and only 6⅔ per cent. of the prostitutes had lived as such seventeen years; in New York, 3¾ per cent. of the prostitutes had lived as such ten years, and only 2¾ per cent. of the prostitutes had lived as such seventeen years.

d. Financial waste.—The extravagance of Americans is notorious. Mr. Powell estimates that there are more than 40,000 prostitutes in New York city, whose average earnings are more than $20 a week; in addition to this 62 per cent. more is expended for liquor in the brothels. This would make the modest sum of $65,000,000 the annual expenditure of the men in New York city on this vice; and if a similar proportion of expenditure be carried out in the cities of the United States the total would be about three hundred million dollars.

REMEDIES.

a. Regulation and taxation (license).—Prostitution has been licensed in the older countries for many centuries. In Rome the licensed prostitutes were compelled to wear a certain uniform and to dye their hair blue or yellow; they were allowed to charge a certain fee, which they could collect by process of law. The unregistered women, however, although under severe legal penalties, continued to exist and multiply in the same walks of life as in the present generation. For example, "the delicatæ, corresponding to the kept woman, whose charms enabled them to exact large sums from their visitors; the famosæ, who belonged to respectable families and took to evil courses through lust or avarice; alicariæ, or bakers' girls, who sold small cakes for sacrifice to Venus or Priapus in the form of the male or female organ of generation; the copæ, servant girls at inns and taverns, who were invariably prostitutes.

"The woman desirous of becoming a prostitute (licensed) presented herself before the public officer, giving her age, place of birth and real name together with the one she assumed; if she was young and apparently respectable the officer did his best to combat her resolution. Failing in this, he issued her a license, ascertaining the sum she was to demand from her customers, and entered her name on his roll." It was the duty of the "ædile" to arrest and drive out of the city all the loose prostitutes, but this regulation was practically unenforced.

In France, during the sixteenth century, many cities legalized and taxed prostitution to an extensive degree. The public house of Toulouse, for example, "was established by royal charter, which declared that the profits of the enterprise should be shared equally by the city and the university. The building appropriated for the purpose was large and commodious, bearing the name of the 'Grand Abbaye.' In it were lodged not only the resident prostitutes of the city, but any loose women who traveled that way and desired to exercise their impure calling. It would appear that they received a salary from the city and that the fees exacted from the customer were divided between the two public bodies to which the enterprise was granted. They were obliged to wear white scarfs and white ribbons or cords on one of their arms as a badge of their calling. When the unfortunate Charles VI. visited Toulouse the prostitutes of the Abbaye met him in a body and presented an address. The king received them graciously and promised to grant them whatever largess they should request. They begged to be released from the duty of wearing the white badges, and the king, faithful to his promise, granted the boon. A royal declaration specially exempted them from the old rule. But the people of Toulouse, no doubt irritated by the want of some distinguishing mark between their wives and daughters and the 'foolish women,' by common consent mobbed the prostitutes who availed themselves of the king's ordinance. None of them could venture to appear in public without being liable to insult, and even bodily injury. Resolutely bent on carrying their point, the women shut themselves up in the Abbaye and did

their best to keep customers at a distance. Their calculation was just; the city and the university soon felt the effects of the diminution of visitors at the Abbaye. The corporation appealed to the king and when Charles VII. visited Toulouse, a formal petition was presented to him by the capitones, praying that he would take such steps as to his wisdom might seem fit, to mediate between the prostitutes and the people and restore to the Abbaye its former prosperity. The king acted with energy; he denounced the assailants of the prostitutes and planted his own royal *fleur de lis* over the door of the Abbaye as a protection to the occupants. This was without effect, for the assaults on the Abbaye became more numerous than ever. The civic authorities proving incompetent to check the disorder, the prostitutes found themselves compelled to seek refuge in a new part of the city. For many years they inhabited their new domicile in peace and quiet. The university then dislodging them in order to occupy the spot, the city built them a new Abbaye beyond the precincts of the respectable wards. It was called the 'Château Vert,' and its fame and profits equaled that of the old Abbaye. About the middle of the sixteenth century the city yielded to the scruples of the moralists and ceded the revenues of the Château Vert to the hospitals, but the grant being made on condition that the hospitals should receive and cure all females attacked by venereal disease, it was found after six years' trial, that it cost more than it yielded. The hospital surrendered the Château to the city." After discussions lasting several years, the city adopted the policy of suppressing prostitution altogether and closed the "Château Vert." (Sanger's Report.)

During the present century the plans for regulation and license have attempted to accomplish the following objects:

1. Registration, in order to discover and control the graduated prostitutes and prevent such novices as can be saved from becoming prostitutes.

2. Inspection and examination once or twice a week, to prevent, if possible, the spread of venereal disease.

3. Police regulation to prevent liquor and gambling being indulged in about the resorts and to maintain order.

4. Taxation or fines to defray city expenditures and to pay hospitals for a part of the cost of treating the prostitutes suffering with venereal disease.

5. To prevent the use of houses of assignation unless registered or controled by means of resident prostitutes, who may aid the police in detecting clandestine or unregistered prostitutes.

Such systems have been very thoroughly carried on in Belgium, Germany and France, with favorable results so far as the licensed prostitutes are concerned, but with an increase in illegitimacy and with uncertain results as to the total amount of venereal disease. Réglementation as adopted by the continental armies and the British army, has been the cause of much discussion, leading to its abolishment by the English in 1886. In the valuable report of Dr. Nevin, made in September of this year, it is stated and proven that syphilis has decreased since the abolition of the C. D. Acts, and Dr. Nevin claims "that réglementation has failed to prove that it has either prevented or diminished venereal diseases." Professor Mounier of Utrecht, an authority of high standing, after a careful analysis of the Dutch statistics, says: "The study of the propagation of venereal and syphilitic diseases in the garrison of the Low Countries from 1850 to 1886 inclusive, made by the purely statistical method, does not permit me to put forward a conclusion either for or against the réglementation of prostitution."

In Hamburg the regulations are similar to those of Paris, with several additional restrictions; for example: 1, female servants or relatives of the keeper, if under 25 years of age, are excluded from the brothels; 2, no prostitute is allowed to retain children either her own or otherwise, over 10 years of age; 3, young people under 20 years of age are not allowed to enter a brothel; 4, no gaming nor liquor selling allowed in brothels; 5, no assignation houses allowed unless inscribed and having as a resident an inscribed prostitute; and only registered girls are allowed to use such houses.

Under the regulation system and medical care venereal diseases were found in less than 4 per cent. of the registered women, and furthermore such cases of syphilis as occurred were light and more easily eradicated than is usually the case. On the other hand Hamburg seems to have been one of the few cities in which procuresses were recognized and in a measure authorized by the police authorities.

Vienna has, during the last three years, adopted a system which, while including the best features of the former regulation, excludes all brothels and compels these women to live in private apartments. This change has been highly spoken of. It is absurd for us to attack the immorality of the old world while we permit the spectacular exhibits, such as are to be seen in the prostitute alleys in San Francisco, Denver and New York and which are permitted as a part of the regulations.

In St. Louis, Cleveland, New York, Omaha and Davenport a system of police toleration on the payment of specific fines, and after submitting the women to medical examination, has been adopted. In St. Louis license was tried for five years, the State legislature having amended that city's charter for that purpose. Syphilis is said to have increased among the licensed women from 3.75 per cent. before adoption to 6 per cent. at the end of the five years. Such results are misleading unless it is shown what care was taken in the medical examination and in the subsequent quarantine procedures.

In this city there have been between forty-two and sixty-four prostitutes inscribed for toleration. The medical examiners report an improvement in personal cleanliness and in general sanitary regulations, and a slight decrease in venereal diseases, although the reports will still show about 6 per cent. of syphilis and 12 per cent. of gonorrheal infection among the inscribed. These examiners deplore the fact that, 1, infected women are not quarantined and sent to hospitals; 2, that no measures are taken to prevent young men and boys from visiting these places; 3, that there seems to be no way to prevent clandestine prostitution, which is on the increase.

In March of this year (1896) the people of Geneva, Switzerland, declared by a vote of 8,300 against 4,068 that the government continue the license system then in force in that city. A writer in the *Philanthropist* states that the license party, called the *Lampe rouge* (the sign required by the authorities to be hung at the door of licensed brothels) marched through the streets of Geneva in ratification parade and marched into the cathedral, singing a hymn in which the Holy

Spirit was supplanted by the *Lampe rouge*, and the banner which they bore with the name *Bon Dieu* supported a red lamp above the name. Such an outrage of decency could only find adequate punishment in the dark ages.

b. Prohibition.—1. Immoral measures can only produce immoral results. 2. Legalizing prostitution causes a great increase in promiscuous intercourse and results in a great increase in both disease and immorality. 3. A large proportion of the prostitutes are, as degenerates or paupers, in all justice wards of the State, and should be protected and cared for by the State.

The great question still remains, *how* best to prohibit and suppress. Stockholm is cited against prohibition; no brothels were allowed there, and yet 2 per cent. of the adult population were in the hospitals each year for the treatment of syphilis and 42 per cent. of the births were illegitimate. A writer affirms that "every house of entertainment was a brothel and every servant a loose woman." In contradistinction to Stockholm there are many small cities, both in the United States and in Europe, where, owing to the character of the population and the decided public opinion, no prostitution is allowed. In such places the authorities, influenced and supported by such strong public opinion that no subterfuges can avail, are enabled to suppress the vice.

A COMPROMISE.

It must be apparent to all that the underlying causes of the social evil are so difficult of removal that all attempts to eradicate them by any process of law have in the large cities been unsuccessful. When poverty can be prevented, when the masses of the people become well educated both intellectually and morally, then, and not until then, will the greatest obstacle have been removed. As a compromise, therefore, the following propositions are offered:

1. Regulation and taxation in *large* cities, such taxation being made the basis of a fund for the protection and support of young or destitute or deserted women who will otherwise become prostitutes.
2. Prohibition in small cities and villages.
3. Prophylaxis.

REGULATION IN LARGE CITIES.

1. Inscription and taxation of all non-convertible prostitutes.

2. Medical examination by city physicians twice a week with power to inspect at will, the services of physicians to be paid by the city.

3. All diseased women to be quarantined by compelling removal to hospital, their expense to be borne by the city or country (as such cases are just as much entitled to be quarantined as smallpox cases).

4. All prostitutes compelled to live alone and no brothels allowed to exist.

5. No men under 25 years of age permitted to indulge in prostitution.

6. No man allowed to visit prostitutes without a certificate of health showing freedom from venereal disease (if the regulations can compel the examination of these women they can also compel them to refuse men without certificates of health). (In Europe all venereal cases in public employes, servants, waiters, etc., are compelled to enter the hospitals.)

7. The inscription of all landlords of the houses of residence of these women and of assignation houses, with additional rules as to the latter class of houses.

8. Police regulation as to maintenance of order, hours, liquor, gambling, etc.

9. All violation by women, or their customers or landlords, punishable by imprisonment or heavy fines.

10. All taxes received from the prostitutes to be devoted to the benefit of young girls or women who through poverty, desertion or any cause, are in danger of beginning a life of prostitution.

PROHIBITION IN SMALL CITIES AND VILLAGES.

Small towns do not, as a rule, contain many victims of destitution, and the people in these towns will average better morally than in the large cities, consequently the police can the more easily render prohibition more effective in such places. Those women who are confirmed prostitutes will not carry on a fight in such a place and will remove to the more congenial atmosphere of some larger city. Men also who are addicted to the habit of prostitution, will generally find it convenient to take frequent trips to the larger towns where their wants can be supplied.

PROPHYLAXIS.

This part of the question is unfortunately so little studied, and the entire question so gingerly handled, except behind closed doors, that the proper education of the public and the proper shaping of public opinion, in which rests the only power of cure, is rendered almost impossible. Public authorities and city administrations are blamed for not enforcing laws plainly placed on the statutes. Juries are condemned for not convicting abortionists. Who compose our officials and our juries, and who uphold them in their conduct and their decisions? An occasional spasmodic outburst by the press or in the pulpit, and the people are quieted. Abortion is upheld by a large percentage of the women of this country, no matter how moral they may be in all other matters. Then also, the majority of the men fail to realize the danger of prostitution, and they support those officials who are known to exercise the best judgment, in not enforcing the law. Physicians and teachers, as well as parents, are to blame in not convincing young men that personal chastity is perfectly consisitent with good health.

The law is even slower in behalf of women, and the protection of young girls from seduction is very slight; in some States the age of consent still remains at 13 years. Finally, the education of the masses, the study of sociology and efforts for the prevention of poverty, and the open and frequent discussion of all these questions, may in time bring public opinion to a wise decision and some fixed policy, without which prophylaxis will remain an impossibility and the law a dead letter.

REFERENCES.

Sanger: History of Prostitution.
Aaron Powell in New York Med. Journal, Vol. lvi.
Butler in Philanthropist, 1896.
Nevins: Report delivered at Berne, September, 1896.
Wilson: Regulations in India for Ninety Years.
Tarnowsky: Sajous' Annual, 1896.

ORIGINAL ARTICLES.

SEPTICEMIA.

Read at meeting of the Winona County (Minn.) Medical Society, Jan. 5, 1897.

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A few years past no one would have listened to the assertion that a relation exists between lower organisms and certain forms of disease. The secretions

were admitted to contain some elements of a physicochemic character, irritative in nature and capable of producing pathologic processes. A large class of miasmatic and contagious diseases are not only admitted by the most eminent pathologists and bacteriologists of today, but are referred by them direct to the animal and vegetable parasites. Evidence is positive proof that septicemia should be mentioned in this connection. What can be clearer since Saunderson's and Bert's investigations in 1873 of the relation between intensity of septicemia and pyemia depends upon microörganisms? I desire to present to you an original research of septicemia on guinea pigs, rabbits, mice, dogs and sparrows which were carried out in the private laboratory of DaCosta and Kyle, Philadelphia, later on continued in the Laboratory of the National Military Hospital, Los Angeles County, Cal. Since then I have added some notes which have a practical bearing. I have reviewed the journalistic literature as well as considered the standard authors. Permit me to present septicemia as to history, etiology, pathology, semiology, differential diagnosis and treatment.

Definition.—Septicemia is derived from two Greek words σηπτικος and αἱμα, literally meaning septic blood. This partakes of an adynamic typhoid fever, or according to Piorry's definition, an alteration of blood by putrid matter.

History.—There is little to be learned from existing literature of the views which were manifested by the ancients. Prior to the birth of Christ, in regard to the morbid conditions, nothing was designated as septicemia.

In the words of Hippocrates, the Father of Medicine, it is certain it was recognized. He reports a well marked case of puerperal fever on the twentieth day of the disease, also a case in which death was unquestionably caused by septic poisoning. Here is his literal translation.[1] "Criton, in Thasno, while still on foot and going about, was seized with a violent pain in the great toe, he took to his bed, the same day had rigor, nausea, recovered his beat slightly and at night was delirious. On the second, swelling of the whole foot and about the ankle there was erythema with distension and small bullæ (phlyctenæ) and acute fever. He became furious, deranged, alvin discharge, bilious, unmixed and rather frequent; he died on the second day from the commencement." Additional information may be had by referring to his illustrious description on empyema and fever.

Prof. C. Henter says under the head of "septic fever." Hippocrates and Celsus observed fever in cases of injuries that proved so dangerous that this danger could not have originated from the inflammation or from the wound alone."

Tacontuis, a consultator of Hippocrates, has even mentioned putrid fever the same as Adrianeus Spigelius, who spoke of fevers which arise from putrefaction. Both authors as well as their followers did not discriminate between septicemia arising from putrescence of wounds and pyemia. In the meantime both varieties were regarded as intermittent fever.

Aretæus lived during the Christian era. In his remarks on pneumonia he spoke of metastatis in certain cases, also of the kidney and liver. He ascribes suppuration of the liver to intemperance and protracted disease, especially dysentery and colliquative wasting.

[1] Works of Hippocrates, Adams Tran., Vol. 1, p. 377.

Galen and some other ancient physicians recognized the existence of septic poisoning as is shown by the opinion expressed on the subject of putrid fevers.

Ætius states, that it arises from constriction of the skin or viscidity of the humors, whereby the perspiration is stopped and the quantity of vital heat so altered as to give rise to putrefaction, first of the fluids and afterward of the fat and solid parts. Synesius and Constantus Africanus gave a similar account. Alexander gives an interesting and ingenious disquisition on the origin and nature of putrid fevers.

Palladus describes two kinds of synochus fevers, one occasioned by effervescence and the other by putrefaction of the blood; of these the latter is the more dangerous.

A new era in the literature of this subject dawned during the sixteenth century. Ambrose Paré and Bartholomew Maggi each published a work in which they pointed out the old error and announced new truths. Paré's "Treatise on Gunshot Wounds" appeared in 1551, while Maggi's appeared a year later. He states his experience at the fortress Villani near Susa, and showed clearly that those whom he had treated with turpentine and an ointment did well, while those who had the heroic measures of boiling oil without exception had fever, great pain and swelling.

Nicholas Massa, in 1553, mentions a case of obscess of the lung following injury of the head. So at this time, even in the early history of medicine, there were forced conclusions that there was supposed to be some relation between wounds of the head and multiple abscesses.

Valsava, in 1707, was induced by his own observations to say, that the viscera of the thorax were sometimes affected in wounds of the head. Desault, in 1794, considered abscesses of the liver to be a sequence of head injuries. Morgagni, 1740, somewhat obscurely limited the doctrine of reabsorption of pus; afterward it was elaborately discussed by Quesuay in 1819.

John Hunter, in 1793, and afterward Velpean demonstrated the existence of pus in the blood.

Gaspard, in 1822, published a complete work, based on experimental research, on the action of putrefying substances on living organisms. He was quickly followed by Erns and R. Virchow who repeated the experiment and discriminated with greater precision between the surgical diseases; on the one hand septicemia with its sharply defined symptoms and on the other hand, the opposite pyemia.

Pamem, in 1855, conducted a series of experiments to separate infected substances and determine its real nature.

Hemmer was awarded the prize of 1867 on the best essay on the putrefying substances in the animal organisms.

Lister, in 1867, began his antiseptic treatment for compound fracture. Feltz and Cozz, in 1872, showed that by injecting putrid liquids into the jugular vein and subcutaneous tissue, the blood of the animal thus destroyed contained infusoria. It was however left to Pasteur in 1877–1880 to demonstrate two principal vibriones, the pyogenic or producers of pus, and the septic or the producers of the properly called septicemia. From this time on a number of observers have given accurate descriptions on this subject, yet since the dawn bacteriology views have changed.

Etiology.—Septicemia, septicemic pyemia, traumatic sepsis, traumatic infection, putrid ichorrhemia, are one and the same thing. Septicemia may have its

causes divided into predisposing and exciting. There are severe wounds causing necrobiosed tissue. And what are the wounds causing this mortification? We have wounds of soft parts and bones, generally with, sometimes without, breaking or tearing the skin, wounds of every kind of affection of various descriptions, in consequence of which there is a decomposition of the extravasated blood and stagnant pus, if death of the part is brought about. As predisposing causes of the malady may be added different affections of the bones, especially periostitis, osteo-myelitis, wounds of the head, puerperal diseases, cold abscesses, decubitus, scorbutic mortification, mortification caused by fecal and urinary infiltration, wounds of the dissecting table, also the so-called pseudo-erysipelas of the subcutaneous and of the intermuscular and other deep tissue, some inflammation of connective tissue and in the vicinity of the salivary glands, and the so-called diphtheritic inflammation of the fauces and large intestines.

Professor Wagner of Leipsic has mentioned in this connection the ordinary wound fever and surgical after-wound fever. Halbertsma of Berlin has considered the secondary or pus fever in the suppuration or maturation stage of variola as a cause. Also some hectic fever, and we may add some constitutional causes. Atmosphere (Allen) plays a most important rôle. Infusoria, one minor cause, based on the principle that decaying tissue excretion and exhalation from the body tend rapidly to increase their number; and either one is always present in septicemia.

We have studied the predisposing influences; what is, or are the exciting causes? The bacilli of septicemia observed by Klein in 1835, are rods, single or in chain; 1 to 2.5 μ. long, 3 to 5 μ. wide. These were observed in blood vessels of the smaller lymphatic glands, and are identical with the bacillus of gangrenous septicemia. Bacilli of septicemia in mice are said to be extremely minute. They are said by Koch to be .8 to 1 μ. long and .1 to .2 μ. wide. Spores have been found, which are probably immotile. They are seldom in chains but lie in pairs, and on cultivation do not appear to make threads, but lie together in masses. In mice they are found chiefly in the white corpuscles. In these they increase their number and in case of a white cell are only represented by a mass of bacilli. The bacilli or rather the spores occur in putrid liquids. Six mice are taken and inoculated with a minim amount of the putrid liquid and two die. They rapidly sicken, their eyes become inflamed, the eyelids stick together, they become soporitic, and in about two days or more, accurately 37½ hours, die. On autopsy there is a slight edema at the seat of inoculation and enlarged spleen. The bacilli are found free, and lodged in the white corpuscles, in edematous tissue, and abundant in the blood capillaries.

It is said a minim out of the putrid fluid causes death in a sparrow. Field-mice have an immunity. Rabbits and guinea pigs, when inoculated in the nose, suffered from a local erythemia, which entirely disappeared in seven days, and likewise rendered them immune for some time. If inoculated into the cornea of a dog he will suffer from inflamed eyes, but no constitutional symptoms. The bacilli are easily cultivated outside the body in an aqueous humor and gelatin rendered neutral by the alkalin sodium phosphate. On plate culture of neutral gelatin specks of a faint cloud-like nature appears, but in a test-tube of the same media they produce a delicate cloudy film along the needle track. A small quantity, after being carried through three generations, produces the disease in mice. The organs of an autopsy may be hardened in alcohol, and stained by Gram's method. Bacilli of septicemia in rabbits are short rods, slightly pointed at both ends, .6 to .7 μ. wide and .1 to .4 μ. long. They stain deeply at the ends, having an uncolored interval in the middle. Two or more may be linked together. They grow well on nearly all culture media. In nutrient gelatin plates they produce dot-like colonies. On test-tubes, little masses in the needle track, and a layer on a free surface. A smaller quantity produces rise of temperature and labored breathing in about twelve hours, and death in twenty hours. Spleen and lymphatics are enlarged and lungs congested. Mice and birds are very susceptible. The disease can be produced by contaminated water and putrid meat infusion; culture of the microbe can be made.

We have studied the various bacilli that help to produce this disease, now for the coccus. The micrococcus of Pasteur occurs singly, or in pairs, lanceolate and encapsulated. They grow best in the temperature of 30 to 35 degrees C. On a solid medium, they form a superficial, nearly transparent deposit of a gelatin-like consistency. They are pathogenic in rabbits, producing sputum-septicemia. Fowls and dogs have an immunity, and guinea pigs are less susceptible than rabbits. The blood, in the animal just dead, is more potent than a liquid culture, or than the saliva containing the coccus. The pathogene is modified by cultivation in a temperature of 39.5 to 40.5 degrees C. This organism has been supposed to cause pneumonia. The streptococcus and staphyloccus of septicemia grow well on all culture media, producing a white delicate film in agar-agar. It stains well with Gram's method, also methyl violet. But can we say any one of these produce septicemia in man? Streptococci have been found, staphylococci, also the various bacilli. Therefore as a general conclusion, we may say no one, but two or more play the most important rôle. Those two which abound most, are the strepto- and staphylococci.

These are adopted by the best writers and investigators as the principal cause. And now the question comes, do these microbes bring about the changes of this malady by their presence by causing a change in the surrounding tissue or blood, or their toxins? Investigation on man or animals prove both.

If one should reason on the doctrine of some of the other infectious diseases, evidence would be positive proof that toxins play by far the most important part.

But how is it that in taking the solution of septic blood from a case of septicemia, and inoculating it into an animal, it produces the former disease? Yet if said septic fluid of blood be filtered, the filtered fluid has no affect, while the filtrate produces septicemia. The question remains where it was before. However, first, the microörganism must be present to produce the infection, and secondly, they must eliminate a poison toxin to develop said infection. Hence, microbes of strepto- and staphylococci are among the chief factors in causing septicemia, and bring it about chiefly by the presence of their toxins.

As septicemia is only a branch of the great tree of all septic infection, we ask ourselves in what manner does the septic virus enter into the general system. 1, manufactured by patient himself; 2, inoculation; 3, infection.

1. This is illustrated by puerperal peritonitis that springs up sporadically at a great distance from hospitals, and when the patient is surrounded by every condition antagonistic to its development. It is almost always traced to portions of placenta blood clots, or retained or infected lochia.

2. That of inoculation is known in dissecting wounds and postmortem wounds; also in secondary operations, where the finger of the physician or midwife causes gangrene and mortification to exist, or erysipelas to women in childbed.

3. By infection, mostly found in hospitals. It generally takes place through the medium of the atmosphere. It may occur in private practice if patients are in close proximation.

To come a little nearer, Bert and Saunderson have demonstrated that if septic fluid, capable of producing toxemia when injected into the veins of a living animal, be strained through a porcelain filter, this liquor so filtered may now be injected with immunity; whereas the solid residue on the filter may now be injected and retain full force of septic qualities of the original fluid. The residue contains bacteria but whether the bacteria were poisonous itself, or merely conveyers, is yet an open question. Again septic materials are not in solution. Lister based his antiseptic treatment upon these facts:

1, there are germs, both in air and upon matter, which coming in contact, under favorable circumstances induce putrefaction in fluids or solids, capable of that change, as fruit juice. 2, this putrefaction is not produced by chemic action or oxygen gas on those organisms. 3, the vitality of these germs may be destroyed by certain chemic agents, which we call in surgery, antiseptics.

What conditions now favor the development of these organisms? 1, generally an unhealthy state of the body which predisposes to decay. 2, retention of putrid products as in a wound imperfectly drained. 3, entrance of matter which sets up putrefactive processes. 4, any condition which favor absorption.

This development is hindered: 1, by a vigorous, healthy state of the body. 2, by removal of putrid products; as by cutting out tissue, or drainage, which is so suitable a feature of modern surgery. 3, by preventing the entrance of matter which sets up putrefaction; as by very scrupulous cleanliness and antiseptic methods of surgery, which represent cleanliness carried to the precision of a chemical experiment. 4, by conditions which hinder absorption; such as limiting inflammations of gangrene and healthy granulations.

As to morbid anatomy.—The pathologico-anatomic condition of septicemia occurred in my experience in guinea pigs; edematous infiltration of the skin with a brownish discoloration that is observed during life. In a long course of five to ten days' infiltration with blood, and in one case of two to four weeks, there is serous fluid. Then there is extensive suppuration of the cellular tissue with more or less extensive gangrene of the skin. The blood is dark, feebly clotted, a few petechiæ beneath the peri- and endo-cardium and pleura, intense staining of the endo-cardium and lining membranes of the vessels, and often a little bloody tinge in serous cavity. Some destruction of blood corpuscles, intense congestion, and ecchymosis with some shedding of epithelium of mucous membrane of the gastro-intestinal tract. The spleen is swollen and soft, the liver likewise, but more congested. The blood of animals which died after injecting 10 minims of putrid blood, generally contained a varying number of cocci bacteria and bacilli, but after inoculation it contained small bacilli. These were present in large numbers, mostly white corpuscles containing one or more of them.

Observation in man.—In man the occurrence of analogous forms is a priori likely, and cases might be quoted in which the existence of pure septic intoxication or septic infection was very probable, but the subject has not been at all fully worked out. Clinically it is usually impossible to diagnosticate between them, and the postmortem signs are very similar. Pathologic changes of a gastro-enteritis are marked. A jaundiced tint of the skin is not uncommon and petechial spots occur. Albuminuria is frequent. The red corpuscles in the blood drawn during life, run into clumps instead of rouleaux. Wide-spread stasis occur. The postmortem signs are feeble rigor mortis and early decomposition. The blood is dark and fluid, but is more often clotted. Soon after death there is deep staining of the endo-cardium and lining membrane of the great vessels, and any serous fluid in the pleura or pericardium will be blood tinged. This is owing to rapid disintegration of red corpuscles, which begins even during life.

Petechiæ begin beneath serous membranes, chiefly on the back of the heart and under the pleura. Hypostatic congestion of the lungs and congestion of the abdominal viscera occur. The spleen is markedly swollen and often pulpy; lastly, the mucous membrane of the alimentary canal may be congested or much more rarely inflamed. Organisms have been found, especially the cocci, in various parts and organs in septicemia. Even when found no characteristic form has been shown to be present.

Marcus Beck states, from his experiments on dogs, 1 to 2 ounces of putrid pus or serum would be required to kill an adult man of septic intoxication. Septic infection may occur from the smallest amount of the poison. Hence we draw the conclusion that large cavities which are imperfectly drained, *e. g.*, badly fractured wounds of joints of pleura, abd. sect. and the uterus post-partum, give septic intoxication. The smallest wound, if there is evidence of inoculation, may give rise to septic infection.

As to semiology.—Septicemia may be divided as regards its symptoms into three varieties: Sapremia, or septic intoxication; septicemia proper, or septic infection; constitutional or insidious septicemia.

The symptoms of septicemia supervene after three or four days, when the wound has been received in non-surgical cases at different intervals after the beginning of the disease. They are less characteristic and intense, though somewhat resembling those of pyemia. We at first perceive that the wound refuses to suppurate, but discharges instead a thin bloody or putrid secretion, which not infrequently contains air bubbles.

Around the wound we first notice an inflammation, which becomes edematous. This edema is very rapid in developing, a day or even a few hours may suffice to produce it, and hurry the patient to his end. It contains an acute purulent edema with its destruction of tissue in such a manner, termed by the French, gangrene *foudroyante*. The skin in this form has a peculiar reddish-brown color. Ordinary septicemia most frequently begins suddenly; generally without, sometimes with, a chill. The fever at first generally

continued, but soon begins to be remittent. As soon as infection begins fever rapidly rises to 101, then from 101 to 104 and assumes a remittent character.

Exacerbation of fever high, slightly lower during remission. Pulse increases from 130 to 160 per minute. It becomes frequent but feeble. Respiration is increased, sometimes going as high as 30 to 50 per minute. The expression is anxious, color darkish icteric hue. No pain but a feeling of uneasiness before the end of twenty-four hours. If the person has a violent chill all the symptoms are increased in severity. There is perspiration after twenty-four hours, and diarrhea is not uncommon.

The discharge is dark and offensive. The tongue is coated with a dark yellowish fur, which is thrown off and the organ becomes dry and cracked. Great thirst supervenes. Anorexia is a general rule and the sensibilities are deadened, this causing no pain. The liver is somewhat swollen and enlarged, likewise the same condition is found in the splenic region. The kidney is congested. Exhalations from the body have a characteristic odor. This tissue waste is great in amount. Near the end the fever becomes higher.

The mania usually accompanying is, as a rule, quiet; seldom do we observe intense delirium with restlessness, jactitation not uncommon. Occasionally a slight icterus comes with or without an icteric consistency of the urine. If diarrhea continues, it may be accompanied with all the symptoms of Asiatic cholera. Late in the disease the skin changes from profuse perspiration to dryness. In some cases the sweats continue until death, especially if the course is rapid. The urine is scanty and dark, occasionally albumin is present. All movements are without power and general lassitude prevails.

Death arises often during an agony of long duration, sometimes after the expiration of a few days, usually at the end of a week. Mental faculties become more obtuse. The patient deepens into stupor, from stupor to coma, coma deepens and the scene is closed by death. The toxic form of septicemia or sapremia is frequently seen in obstetric cases, in which putrefaction of retained clots or placenta has taken place within the uterus, or sometimes in large wounds other than the uterus. The poison, in regard to the uterus, is absorbed through the mucous membrane of vagina or uterus or through the uterine sinuses. The disease is ushered in with a sharp rise of temperature, the chill usually being absent. The temperature continues high and is accompanied later with delirium. The pulse is rapid and running, the tongue is dry, and the thirst, as a rule, predominates. Headache with great restlessness also prevails. Some gastric irritation may be present, as nausea, or perhaps vomiting with slight diarrhea. Great prostration supervenes. Three conditions must be present in this form of sepsis, dead tissue, infection of this dead tissue with putrefactive bacteria, and a sufficient time to have enabled putrefactive bacteria to produce a toxic quantity of ptomains.

The outlook in sapremia depends upon the dose of the poison which has been absorbed, and the possibility of rinsing and cleansing the infected focus. A prompt removal of all decomposing substances from the interior of the uterus will be followed in a few hours by a disappearance of all alarming symptoms. Conditions favorable for such a type of poisonig are rare in general surgery, although a large ill-drained wound or decomposition occurring in the contents of a psoas or other abscess is not an uncommon cause. These conditions also may be found in abdominal wounds, where extensive injury of the peritoneum has favored oozing and accumulation of blood-clot in the peritoneal cavity.

In insidious septicemia the symptoms are so much at variance with those generally accepted as characteristic of the disease that our present methods of diagnosis must fail, and this so unfortunately that these are almost always fatal cases. If the progress is insidious the diagnosis is impossible, the prognosis favorable for something else, and the result invariably fatal.

Intuition, not medical skill, must guide us in the absence of symptoms. But whence is it that we derive these intuitive ideas that guide us in diagnosticating a case in such a vague manner? The very prominent symptoms of fever and pain are the ones most usually wanting, the degree of danger being inverse to the intensity of the symptoms. The absence of symptoms and fatal results characterize this form of septic poisoning. It may be both with auto- or hetero-infection, also may begin with chill or not. We always find a state of perfect contentment and well-being. The patient is satisfied with his condition although being in bed. Another symptom is slight looseness of the bowels; not diarrhea, but a soft, natural stool, perhaps not more than twice a day, wanting in all the characteristics of septic diarrhea, without foul odor which occupies the latter. The disease begins with a chilly sensation, a feeling of discomfort with slight fever, 99.5 to 100 degrees F. These soon pass away and leave the patient without ambition. In this state he remains without desire for nourishment, but it seems from a natural want of appetite; always feeling well, but gradually sinking until he passes away, more commonly comatose than in convulsions.

As to diagnosis.—The diagnosis of septicemia is clear, the fever steadily increases and lowers in the morning until near the end, when the temperature falls even to below the normal. At times the skin is moist, the pulse is rapid, a slight icteric hue, the facies expression; also a lethargic condition from the beginning with the various cerebral, abdominal and pulmonary symptoms, and in septicemia of a wound makes it easy. The differential diagnoses are but few, and the only one of importance is that of pyemia. This may be considered from an etiologic, pathologic and semiologic standpoint.

ETIOLOGY.

PYEMIA.	SEPTICEMIA.
1. Pyemia commences with putrefaction in an open wound, of the secondary wound fluids, pus, etc., in which there is developed globular bacteria, which enter the blood and certain tissues of the body, when they multiply and produce constitutional disturbances.	1. Septicemia generally commences with the putrefaction of an open wound, of primary wound fluid, in which there develops rod bacteria, strepto- and staphylococcus, which enter the blood and certain tissues of the body, where they multiply and porduce constitutional disturbances.
2. Pyemia is commonly preceded by some local inflammation, wound complication, such as suppuration, osteomyelitis, periostitis, etc., and rarely developed before the second week of the injury.	2. Septicemia is a primary wound complication, which is generally developed within forty-eight hours after the receipt of the injury.

PATHOLOGY.

PYEMIA.	SEPTICEMIA.
1. Increased coagulation of blood.	1. Diminished coagulation of blood.

PYEMIA.	SEPTICEMIA.
2. Metastatic abscesses in various parts of the body, especially lung, liver, kidney. Serous cavities frequently contain purulent deposits. Similar deposits are those found in joints. Abscesses in cellular tissue. During life abundant evidence of a pyemic endo- and peri-carditis.	2. Complete absence of purulent or ichorous pus in all cases of mixed septicemia. Postmortem shows no alteration except blood with some edema of lungs.
SEMIOLOGY.	
PYEMIA.	SEPTICEMIA.
1. Pyemia commonly commences with a chill.	1. Septicemia commonly commences without a chill.
2. Fever variable but rarely entirely intermittent.	2. Fever steadily increases but is lower in the morning.
3. Sudden and great change in temperature followed by profuse perspiration.	3. Temperature is high at the beginning of the disease, increases until near the fatal termination, when it falls below the normal. Skin is moist but without profuse sweating.
4. Pulse variable, toward the fatal end rapid, feeble and irregular.	4. Pulse rapid and gradually increase in frequency toward the fatal end.
5. Facies at the beginning flushed or pallid, toward the fatal end careworn.	5. Facies dull, listlessness throughout the whole course of disease.
6. Tongue smooth, dry and red, later brown-coated and even the teeth may be covered with sordes.	6. Tongue, lips and throat dry at beginning, toward end marked thirst.
7. Diarrhea until stools are of a pappy consistency.	7. Rice water evacuation, very offensive, obstinate sweating.
8. Epistaxis.	8. Epistaxis rare.
9. Mild delirium toward the end.	9. A lethargic condition from the beginning, increasing toward the end.
10. Aphthæ in mouth and throat, sudaminæ, vesicles, pustules and purpuric patches.	10. Icteric hue of conjunctiva, singultus often present. (Pepper.)

As to treatment.—Sapremia is treated by the liberal use of stimulants and the prompt removal of the cause. If a wound with a bad drainage reopens, irrigate with corrosive sublimate, 1-1000, followed by sterilized water. Also remove any dead tissue. The small pocket of a wound should be thoroughly washed and drained. All this is especially true in retained clot or portion of placenta or membrane in uterus after childbirth.

Alcohol in any form should be given for effect and not by amount; strychnia hypodermatically with morphia to stimulate the heart and respiration. Food should be given in the way of egg-nogg, milk punch, to derive the effect of nutrition and stimulation. Many methods have been laid down to treat this most dreaded disease. In insidious septicemia or constitutional septicemia, as I have classed it, little or no treatment is used, for the disease is rarely recognized as such, and if so, the patient is in the last stages of death. Heroic measures are necessary. Stimulants should be given by every avenue of entrance into the system. Prepare for the worst and hope for the best. The treatment of septic infection was as varied in times past as the remedies for rheumatism. For the most part, however, we may lay down some rules to follow, which have some practical bearing:

1. Absolute cleanliness, that is to say, daily changing of bed linen and linen of the patient; seeing after the discharges of the patient and prompt removal from the room.

2. Purity of the atmosphere. The room should be well ventilated daily. Not alone this, but a constant ventilation which does not make draft on the patient, should be looked after. A large room, which should have a sunny exposure.

3. A moderate and equable temperature containing a proper amount of moisture.

4. Proper quantities of nutritious and easily digested diet with suitable driinks.

5. Cheerful and pleasant surroundings, especially companions, nurses and attendants.

6. The avoidance of all putrefaction in contact with the wound, especially prior to the development of sufficient granulation to completely cover its surface. This object is to be accomplished by the removal of all necrotic tissue, the avoidance of putrescent fluid by cleanliness and antiseptics.

7. Therapeutics of the case.

a. Temperature may be relieved by drugs or hydrotherapy.

b. The free use of the alkalin sulphates and hyposulphites.

c. The use of stimulants at times when needed.

d. Restlessness and pain should be quieted by morphia.

8. Antitoxin or serum treatment. I believe the day has come when septicemia like other infectious diseases can be treated by antitoxin. Since Behring has found one for diphtheria, Titzzonii one for tetanus, Richon on serum therapy of syphilis; the serum therapy of erysipelas, and Koch on anti-tubercle serum in tuberculosis of the skin. Septicemia with other diseases of like character and causes, due to microorganisms, will have similar treatment. Balance and Abbot have already reported cases. One, a physician who pricked his finger in making a post-mortem. Cellulitis and lymphangitis followed within twenty-four hours and the whole body was covered with a scarlet septic erythemia. One dram anti-streptococci serum was injected and repeated every four hours and upon the third day doubled. Convalescence was established.

The most distressing symptom of fever, headache; coated tongue, rapid pulse, rapid respiration soon disappeared. The wound incised to relieve tension healed without suppurtion. McKerron (*ibid.*) describes three cases of puerperal septic infection in which injection of anti-streptococci serum was made. Serum was used in doses of 10 c.c. The first received three injections, the second four injections, and the third three injections. And with but these few injections each recovered rapidly.

Callie, in his lecture of Feb. 5, 1896, at the Post-Graduate Hospital, gave a more liberal use of the antitoxin of diphtheria than for diphtheria alone in the following:

The antitoxin of diphtheria.—He used 500 units in tonsillitis with fever; 1,000 units in naso-pharyngeal diphtheria; 1,000 units in croup; 500 units in scarlet fever; 100 units in measles; 100 units in pertussis; 100 units in exposed children. These he gave from practical experience. And so with septicemia and sapremia with its varying grades of intensity, one may begin with 10 c.m. of anti-streptococci serum and given in doses depending upon the case. I have here a bottle of anti-streptococci serum of P. D. & Co., which is a splendid sample.[2] The serum must be given hypodermically and care is necessary in the proceeding to avoid mixed infection from the skin or from a dirty syringe or needle. A safe method is as follows: Wash out the syringe and needle repeatedly with a 5 per cent. solution of carbolic acid or satu-

[2] Not that I wish to praise any special manufacture, but that I have found their antitoxins and serums always up to the standard.

rated solution of boracic acid. Place the needle in a small dish of the same solution until ready for use. Now wash out the syringe with recently boiled water. The places best suited for injection are the thigh, abdomen or side of breast when there is considerable subcutaneous connective tissue. The skin at the point of injection should be scrubbed with soap and water and then rubbed with a 5 per cent. carbolic acid solution, this disinfectant acting at the same time as a local anesthetic, diminishing the pain of injection. Inject the anti-streptococci serum fairly deep into the subcutaneous tissue.

Upon the treatment of this I have endeavored to give a general conclusion from the various treatments which have been used. In fact, a paper far more lengthy than this I could have written upon the many things that have been tried. In face of these facts he is an unwise, if not an unfaithful, practitioner who does not throw around the patient every possible protection against the entrance of septic germs through the gateways open by the necessary traumatisms.

Withstand the beginnings, the remedy is applied too late,
When the evil has grown strong through delay.—Ovid.

ROUND ULCER OF THE STOMACH.

A Clinical lecture delivered in Rush Medical College.

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The patient whom I shall exhibit to you this morning is a young woman, 23 years of age, unmarried, and by occupation a cook. She is of good figure, plump and apparently well nourished. But her countenance is abnormally pallid; the naso-labial lines are deeply chiseled around the corners of her mouth, and there is about her face an expression of painful anxiety that is unnatural in one so young. She tells us that for three years she suffered with uneasy, gnawing sensations behind the tip of the ensiform cartilage, and that these were aggravated by food or drink, or by the accumulation of gas in the stomach. Sometimes she felt a similar pain between the shoulder blades, usually near or under the tip of the right scapula. Still, she was able to work, and made very little complaint until one day, six weeks ago, she experienced a feeling as if something had given way in her stomach. This was soon followed by intense prostration, nausea and vomiting of blood. She thinks she must have thrown up fully a quart of dark, clotted blood. This hemorrhage continued in diminishing quantity for nearly twenty-four hours, and was followed by several stools composed of black, tarry matter—blood that had passed from the stomach through the small intestines. She was much blanched by this loss, and was so enfeebled that she was compelled to enter a hospital, where she remained for a month.

Examination of the thoracic viscera indicates no disease in those organs. The same thing is true of the pelvic viscera, the spleen and the kidneys. But the epigastrium is still sensitive to pressure. The liver appears to be slightly prominent below the ribs, though not painful on percussion or manipulation. Since the acute attack of hemorrhage there has been no recurrence of vomiting, nor any blackening of the stools. The patient, however, recalls the fact that once before, about six months ago, just before the menstrual period, she vomited a quantity of slimy matter in which were streaks of blood, and a small quantity of coffee-ground sediment.

With this array of symptoms you are warranted in the diagnosis of ulceration of the stomach. It is also certain that we have before us an example, not of the superficial ulcers which are often found in catarrhal inflammation of the gastric mucosa, but of the deep and grave form of disease known as round ulcer of the stomach. This disease is not very rare, since it is said to be found in about 5 per cent. of all cases upon the postmortem table. This figure is subject to considerable variation in different countries and among different races, being, no doubt, considerably influenced by the diet and mode of life of the people. Occasionally, more than one ulcer may be discovered, but usually the lesion is single. Sometimes, a similar ulceration exists in the esophagus or in the duodenum. In nearly half the cases, the ulcer is situated on the posterior wall of the stomach. In a little more than one-quarter of the patients, it occupies the lesser curvature of the organ, and in about 16 per cent., it will be discovered in the pyloric region, so that it is not a common event to find ulceration of the anterior wall, greater curvature or cardiac portion of the viscus.

The size of the ulcer is usually quite moderate—frequently it occupies less than a square inch of the gastric surface; but in some cases much larger areas have been involved.

The form of the ulcer is so characteristic that it has given its name to the lesion. Seldom do we discover any considerable variation from the round or oval shape, unless two or more neighboring points of ulceration have encroached upon each other's territory, producing a large and irregular loss of substance by coalescence of their margins.

The initial seat of the ulcer is always in the mucous membrane of the stomach, where it presents itself with a sharply defined border, as if it had been punched out of the mucosa. Seldom does it exhibit any surrounding zone of inflammation and exudation. Sometimes it penetrates no deeper than the muscular coat, which may then appear as if cleanly dissected out upon the floor of the ulcer; but it may perforate the different layers of the gastric wall, one after another, until it bursts through the serous covering of the organ. The form of the ulcer is funnel-shaped, with the point of the funnel directed toward the outer surface of the stomach. The apical point is not in the center of the crater, but is displaced to one side or the other, according to the direction of the arterial twig around which the original solution of continuity took place. When the ulcerative process approaches the serous covering of the stomach, an adhesive peritonitis is sometimes set up, and the gastric wall at that point becomes adherent to some neighboring organ. In this way is prevented the passage of the gastric contents into the peritoneal cavity; but it may happen that the ulcer may continue to eat its way into the adherent organ, and may thus finally open a communication between the stomach and the intestines, or the gall bladder, or the pleural cavities, or even the external world through the abdominal wall. In certain cases, the adhesive inflammation may be sufficiently extensive to produce an encapsulated peritonitis, forming outside of the stomach an abscess cavity into which the ulcer opens. This cavity may in its turn become connected by an ulcerative opening with other organs and cavities of the body, so that a long, fistulous track will be found between the cavity of the original gastric ulcer and its distal opening. In this way a subphrenic abscess, or even a pyo-pneumothorax may be formed.

In this connection it is worthy of note that these remote connections are more liable to occur when the ulcer is situated in the posterior wall of the stomach. When placed in the anterior wall, or in the cardiac portion of the organ, direct opening into the peritoneal cavity usually occurs, because the great mobility of the anterior surface of the stomach and of the abdominal wall prevents the formation of protective adhesions.

The healing process after ulceration is sometimes so perfect, that the presence of cicatricial tissue may be easily overlooked by an inexperienced observer. But in many cases the process of cicatrization leads to the formation of thick bands of connective tissue, which contract and lead to considerable deformity of the stomach. When adhesive peritonitis has also existed, the resulting connections may additionally hamper and deform the organ, and may become the cause of internal hernia and other fatal accidents.

Let us now consider the causes of these peculiar ulcers. It is worthy of note that by far the greater number are encountered in the female sex. Rarely do they occur before the age of puberty, but during the period between 15 and 30 years of age, they are most common—that is, during the life-period when women are most liable to chlorosis. The patient before you illustrates these facts, for she has told you that since her seventeenth year she has always been pale. Enumeration of her red blood corpuscles shows the presence of 5,450,000 in the cubic millimeter, but the ratio of hemoglobin is only 65 per cent. Another favoring cause of gastric ulceration is to be found in the chronic infectious diseases, such as syphilis, tuberculosis and chronic malarial poisoning. It is probable that it sometimes is dependent upon those forms of auto-infection that produce disease of the arterial walls.

Among the exciting causes of the disease are local injuries of the gastric wall, either by blows or pressure from without, or by swallowing corrosive or overheated substances. Fragments of bones, nuts, shells and other insoluble articles introduced with the food, or otherwise, have been responsible for the occurrence of ulceration; but it is probable that these agents do not ordinarily suffice to excite anything more serious than erosion of the mucous membrane, such as is often discovered in catarrhal inflammation of the mucosa, unless there be also a morbid condition of the walls of the blood vessels that lie in the coat of the stomach. It has been shown by numerous experiments that interference with the normal circulation of blood in the gastric vessels will cause ulceration in the territory of the obstructed artery. When blood ceases to flow through the capillary network, it can no longer maintain that alkalinity of the tissues which appears to be the natural opponent to the corrosive action of the acid gastric juice. Consequently, injuries sufficient to arrest the circulation in a given partion of the gastric wall may occasion the formation of an ulcer. Chlorosis, tuberculosis, syphilization, etc., produce fatty or amyloid degeneration of the arterial coats, so that a local injury of the mucous membrane, in such cases, is followed by circumscribed blood stasis that would not have occurred in a healthy individual. This concurrence of various predisposing causes with a local traumatism is, in the majority of cases, the means of originating a process of ulceration that differs from the ordinary simple ulcer of catarrhal gastritis in the fact that it is, in its location and evolution, closely associated with arterial distribution and vascular conditions, instead of being placed at random wherever a local injury may chance to occur.

The duration of a gastric ulcer is exceedingly variable. Sometimes perforation speedily follows, but in certain instances the symptoms of ulceration persist for almost a lifetime. In such chronic cases, as old age comes on, there is reason to fear the development of cancer in the margin of the ulcer, or upon its scar if cicatrization has already occurred. The effect upon the general health is also variable; in many cases there is no loss of appetite or strength, and the patient, like the one before you, loses little in weight. Frequently, however, there is emaciation, loss of strength, and the sufferer becomes haggard and worn in appearance from loss of sleep and continual suffering. The temperature of the body rarely indicates any disturbance, and the urine remains without notable change. The bowels are frequently constipated.

The occurrence of perforation of the gastric wall is immediately followed by symptoms of the gravest possible character. Peritonitis is speedily established; the patient suffers intense pain; the belly is distended and painful on pressure. As exudation progresses, dulness increases; but the liver and spleen seem smaller because they are crowded upward and backward by the accumulation of gas in the intestines. It is worthy of note that, unlike what is observed in ordinary peritonitis, there is no vomiting, because the gastric contents are expressed through the opening into the peritoneal cavity, instead of finding their way up the esophagus. Consciousness persists till the last moment, and death results either from exhaustion, or from interference with respiration and circulation through excessive upward displacement of the diaphragm.

When adhesive peritonitis precedes the occurrence of perforation, the symptoms are less severe, and are circumscribed by the boundaries of the adhesion. If the pleural cavity, or the pericardium are entered, the phenomena of pleurisy or pneumo-thorax, or hydro-pneumo-thorax, pericarditis, pneumo-pericarditis or hydro-pneumo-pericarditis will be manifested. Occasionally the ulceration makes its way into the mediastinal space, and then the symptoms of mediastinal emphysema will be developed, just as perforation of the abdominal wall may lead to subcutaneous emphysema through the passage of gas from the stomach into the subcutaneous areolar tissue. Sometimes a communication is set up between the cavity of the stomach and the air passages in the lungs, so that food and gastric juice may be detected in the sputa. If the liver and the portal vein be invaded, thrombosis of the portal vein may occur, and this may lead to the formation of metastatic abscesses in distant organs, with the establishment of universal pyemia, and death as its consequence.

The occurrence of healing and cicatrization of the ulcer is not always devoid of danger. Pain is often persistent for a long time after cure of the ulceration. Sometimes the symptoms of acute disease subside, but the evidences of chronic catarrhal inflammation become prominent and persist indefinitely. When the pyloric orifice was the seat of disease, cicatricial contraction may lead to stenosis of the pylorus and consequent dilatation of the stomach. If the muscular layer has been destroyed the opposite condition will exist, and the stomach will be unable to retain its contents because of destruction of the pyloric sphincter.

The possibility of gastric carcinoma developing in the scar of an old ulcer is always to be kept in mind. This is by no means an uncommon sequel of the disease.

Sometimes death occurs in consequence of a concealed hemorrhage from a gastric ulcer. In such cases the phenomena are those of collapse, terminating speedily in death. Sometimes, however, there is a discharge of blood through the bowels, which after the decease of the patient can be traced to an open vessel in the floor of a previously unsuspected ulcer. I was once called to the bedside of a woman who had been employing the methods of the "faith cure." I found her blanched and dead. The members of the family stated that for about twenty hours she had been troubled with a looseness of the bowels, which she attributed to some error of diet, and for which she would take no medicine. When, finally, she began to groan with pain her friends sent for a physician, but it was too late, and she died before my arrival. On examination of the body the intestines were filled with black blood which could be traced to its source in a gaping arterial twig at the base of an ulcer, no larger than a five-cent piece, in the posterior wall of the stomach. In this case there had never been any suspicion of the existence of the disease before its demonstration at the autopsy.

This indicates the fact that a round ulcer of the stomach is not always easily recognized. In ordinary cases, when a chlorotic young woman complains of severe, persistent and narrowly circumscribed pain in the epigastric region, and when this pain is accompanied by vomiting of highly acid substances and by hemorrhage from the stomach, the diagnosis is comparatively easy. But when these symptoms are not all present it is often difficult to exclude the possibility of other diseases, such as gastralgia, chronic catarrhal gastritis, gastric carcinoma and biliary colic. In cases of simple gastralgia there is no increase of pain after eating; pressure over the stomach gives relief rather than aggravation of pain; there is no vomiting nor discharge of blood from the stomach, and neuralgia is frequently experienced in other regions. Sometimes the passage of an electric current through the body, placing the anode over the stomach, will give immediate relief to pain. Enthusiastic electricians often introduce the electrode into the stomach itself, but one should be very sure of the loyalty of his patient before trying this experiment.

In cases of chronic catarrhal gastritis the location of the pain is less circumscribed and the intensity of the suffering is less than in gastric ulceration. The disease is usually dependent upon errors of diet, and is more amenable to treatment than is an ulcer.

Gastric carcinoma occurs in advanced age; it quickly leads to cachexia, impoverishment of the blood and enlargement of the left supra-clavicular and inguinal lymphatic glands. The presence of a tumor in the gastric region argues in favor of cancer, though it must not be forgotten that a large scar may feel very much like a tumor under the abdominal wall. The absence of free hydrochloric acid from the gastric juice, when associated with the other symptoms is almost diagnostic of carcinoma.

In biliary colic the pain is concentrated in the region of the gall bladder and common bile duct; the paroxysms are often accompanied by vomiting and chills without fever, and are usually followed by jaundice that soon subsides with the correction of suffering.

The treatment of round ulcer of the stomach must be both dietetic and medicinal. When there is severe pain, vomiting of blood, etc., the patient must be kept in bed with a large poultice or piece of spongio-piline over the stomach. Solid food should be forbidden, and, if possible, a milk diet should be enjoined. The milk should be heated to 160 or 180 degrees F., but not boiled, before it is used. When there is hemorrhage it should be taken cold. If it sours in the stomach the acid may be neutralized with sodium bicarbonate or with lime-water, or, if the bowel be constipated, with the milk of magnesia. Patients who can not tolerate milk may sometimes take koumyss, or buttermilk or malted milk, or Fairchild's peptonized milk or other preparations that are recommended for nursling children. For more than thirty years I have found much benefit from the administration of cod-liver oil or olive oil, in tablespoonful doses as often as it can be tolerated. This acts mechanically as a protective covering for the ulcer and dietetically as an article of food.

Whenever there is intolerance of milk and oil it is necessary to give them broths and soups, out of which all solid particles have been strained. The various extracts of beef, bovinine, white of egg stirred into water, etc., may be recommended. Sometimes it becomes needful to withdraw all food from the stomach and to depend wholly upon nutrient enemata. These should consist of soluble beef extracts, egg-albumin and other liquids that will not solidify in the colon. They must be slowly introduced through a long rectal tube, after the bowel has been washed out by irrigation. The addition of twenty drops of tincture of opium may be required to prevent the premature expulsion of the enema. In this way it is possible to nourish a patient for three or four weeks. When gastric feeding is resumed it should be introduced by giving small quantities of food every two hours. At first the food should be liquid; then you may give calves' brains, tripe that is stewed to a pulp, the soft part of a raw oyster, raw or soft-boiled eggs, sweet-breads, and, finally, minced meat and the tenderest of beefsteak. Bread, in the form of dry toast, may be cautiously given, if slowly and thoroughly chewed before it is swallowed. Fruits and vegetables can not be allowed until a cure has been effected.

The occurrence of hemorrhage should be treated with an ice-bag over the epigastrium. The bag should be wrapped in a soft towel before it is applied to the skin, so as to absorb the moisture that condenses upon its surface. Small pieces of ice may be frequently swallowed and a hypodermic injection of ergotole or the fluid extract of ergot should be given in doses of half a drachm every two to four hours. The internal administration of ordinary styptics by the mouth is contra-indicated by reason of the vomiting which they usually aggravate. When such vomiting occurs it should be opposed by the hypodermic injection of morphin and atropin (morph. gr. $\frac{1}{4}$, atrop. gr. 1–150). Sometimes it yields to drop doses of creosote well diluted and repeated every fifteen minutes. After the subsidence of vomiting, the tendency to hemorrhage may be met by giving ten drops of aromatic sulphuric acid in four ounces of water every two or four hours. Liquor of the persulphate of iron, or of the perchlorid of iron, may also be given in the same way.

For a local antiseptic effect upon the ulcer, benefit may be derived from the use of large doses of bis-

muth salicylate or bismuth subgallate. These salts may be given in doses of 10 to 60 grains every two to six hours. Nitrate of silver and acetate of lead have been often used, but their utility is doubtful in comparison with that of bismuth. After the subsidence of acute symptoms, compound tincture of iodin is very useful. It should be given in doses of one drop in four ounces of water, half an hour before the three principal meals. The dose should be gradually increased to 4 or 5 drops, but it should be never carried so far as to cause irritation of the stomach. These small doses may be continued throughout the period of convalescence.

Constipation, which is an indication of chronic catarrhal gastro-enteritis, should be obviated by the use of saline laxatives. The waters of Saratoga, Rubinat, Hunyadi János, Friedrichshall and Carlsbad are especially valuable for this purpose. They should be taken half an hour or an hour before breakfast, in quantity sufficient to produce a gentle evacuation of the bowels each day. In this way the territory of the portal circulation is efficiently drained and the healing process is expedited. But these waters should not be taken longer than four or five weeks, for fear of exciting a particular inflammation on their own account. Used with occasional intermissions, they may be given for a long time. Many patients are much benefited by an annual course at the springs. Even the bottled waters taken at home are also very beneficial.

The occurrence of perforation and general peritonitis calls for the administration of opium and the external application of poultices. Laparotomy has been performed with the hope of suturing the wound and cleansing the peritoneum from the contents of the stomach, but the results have not been so far encouraging. And yet, it is the only thing to be advised outside of the routine treatment for peritonitis. Probably with larger experience a greater degree of success will be reached.

THE TREATMENT OF HEMOPHILIA WITH CHLORID OF CALCIUM, WITH REPORT OF A CASE.

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The treatment of hemophilia with the usual agents recommended for this disease, has been so ineffective that much difficulty has been experienced in arresting the hemorrhage from the slightest wounds, and many patients have died from the excessive loss of blood after the most trivial injuries.

The only advance in the therapy of this disease, has been made by Dr. E. A. Wright,[1] who taking as a basis for his investigations the physiologic fact that a certain per cent. of calcium salts is necessary for the coagulation of the blood, made a series of experiments with calcium chlorid, and demonstrated its efficacy in increasing the coagulability of the blood.

In a later article the author reports the results of his examination of the blood of a case of hemophilia, and the coagulability of the blood before and after the administration of chlorid of calcium. He found that the blood contained a smaller number than normal of white corpuscles (8,400–6,500 in 1 c.mm.), and that the degree of coagulability was subnormal, being from nine to ten minutes, instead of two and one-half to five minutes, as in normal blood. After the use of the calcium salts in one gram doses three times a day, the coagulation time was reduced from ten to five and one-fourth minutes. In another article he describes three other cases, in all of which the chlorid had a marked beneficial effect. He also demonstrated that if this agent was used in large doses for a long time, that it is not effectual in keeping up a permanent increased coagulability.

He reports the following interesting case of hemophilia: A child four years of age received a fall, and in doing so injured the frenum of the upper lip. The bleeding was so profuse that the child's life was endangered, and as the blood showed no signs of coagulating, a dose of calcium chlorid was administered, and in three hours the blood commenced to clot. A firm coagulum formed, and the hemorrhage was arrested. As the bleeding recurred several times, the action of the calcium salt was supplemented by the inhalation of carbonic acid with a beneficial result.

Another case showing the efficiency of this drug is reported by Bryant. A child four and one-half years of age, received a punctured wound in the supra-orbital region from a fall. The hemorrhage was so profuse that the patient became almost pulseless. After pressure, styptics, and all the usual means of arresting bleeding had failed, and still the blood showed no signs of clotting, chlorid of calcium was given, and in a few hours the blood commenced to coagulate, the hemorrhage gradually ceased and did not recur.

The following case that came under my care some time ago, will furnish additional proof of the value of this "physiologic styptic."

A. L., male; aged 20 years; nativity, Russia, came to my office April 2, 1895. He was suffering with an alveolar abscess, resulting from irritation produced by a carious tooth. A small incision one-eighth of an inch long was made through the mucous membrane, and a small quantity of pus evacuated. I was surprised that so small a wound should bleed so profusely, but thought that it would soon subside, consequently, a wash containing tannic acid was given and he was instructed to wait until the hemorrhage ceased. At this time I was called away from the office, and upon returning I was surprised when my assistant informed me that the bleeding still continued, and that the patient had lost a considerable quantity of blood. I then used a solution of perchlorid of iron and other styptics, but without success, and as pressure was of no avail, packing was tried, but it rapidly became soaked, and the blood showed no signs of coagulating. By this time the patient was on the verge of fainting. Finally after four hours energetic work, the hemorrhage was temporarily checked by packing the whole space between the alveolar process and the cheek with gauze saturated with a strong iron solution.

A careful inquiry into the patient's past history revealed the fact that he was one of a family of "bleeders." Two brothers had died in infancy from hemorrhage, resulting from trivial injuries. He himself had on several occasions bled until he had fainted, from mere scratches of the skin, and accidentally cutting his fingers had on two occasions nearly resulted in death from profuse hemorrhage. He was pale, anemic and showed evidences of his diathesis.

Expecting further trouble from the slight wound I had innocently made, the patient was sent to the hos-

[1] British Medical Journal, 1891, II, 1306.

pital for observation. A few hours after his admission, Dr. Maisch, the interne, was called to see him for severe nose bleed, the epistaxis was profuse, and as the ordinary means failed to arrest it, it was necessary to plug the nares. Twelve hours later the hemorrhage from the wound recurred, the blood showed no signs of coagulating, and the bleeding only ceased when the patient was on the verge of collapse. The respite, however, was brief, and six hours later another alarming hemorrhage occurred, and after all the ordinary means had been used without success, Dr. Maisch suggested that we try the internal administration of chlorid of calcium. This was given in 1.30 gram doses, and in a few hours the effect was magical; the blood, which had showed no signs of clotting, began to coagulate, a firm clot formed, and the hemorrhage was completely arrested. The calcium salt was given in 1.30 gram doses every four hours during the first day, every six hours during the second day, and three times a day on the third, when its use was discontinued. The hemorrhage did not recur, and after the expiration of a few days the patient was discharged from the hospital, and passed from my observation. The effect of the salt in this case was certainly prompt and efficacious, and was the only agent whose use was followed by beneficial results.

The points I wish to emphasize in concluding the description of this case are:

1. The alarming hemorrhage that may result in these cases from the most trivial injuries.

2. The futility of using local styptics and the ordinary means of arresting bleeding in cases of hemophilia.

3. To impress the fact that in the use of the physiologic styptic, chlorid of calcium, we have a prompt and reliable agent, one that will render valuable results in trying moments, and will rescue apparently hopeless cases.

CONGENITAL TEETH.

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On reading Dr. McKee's article in the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, page 253, Feb. 6, 1897, I was so impressed with its statements in regard to the etiology, treatment and non-frequency of the cases of congenital teeth, that it seemed to be my duty to register my personal experience in these cases. Dr. McKee says, "this freak of nature has been noticed at wide intervals and with great rarity for a long time." Also "these cases serve as a curiosity for doctors and students, and are a sight many do not see in a lifetime." I had not supposed these cases so rare or so much of a curiosity, for in a practice of thirty years, with a fair obstetrical clientage, I have attended three cases when there were two lower central incisor teeth at birth; and I never failed at these cases, or soon after, while it was the talk of the neighborhood to find several old ladies who had *seen* or *heard* of several such cases. My wife who is now fifty years old (don't let her know that I am telling her age, for she looks to be only forty) informs me that she had two central inferior incisors at birth and that they remained the usual length of time, when they were replaced by permanent teeth, which she still has in a perfect state of preservation. Her family and personal history is perfect. My first case was at my wife's third confinement, resulting in twins, male and female; born at full term, both strong and healthy, with nothing out of the usual line except the girl, had two central inferior incisor teeth, firmly set in gums and well developed, but a little smaller than ordinary milk teeth developed at the natural time. The teeth were in healthy condition when she died of cholera infantum at the age of four months. My second case was at my wife's fifth and last confinement, when a strong and healthy daughter was born with two central inferior incisor teeth; one firm in the gums and the other loose and attached only to the outer gum. I removed it with my fingers without producing any hemorrhage or soreness. It has never been replaced. The other is firm and in a good state of preservation but smaller than to correspond with the other teeth. She is seven years old, and a well developed, strong healthy child. I am somewhat anxious to see if a permanent tooth will be developed where the one was extracted. My third case was a fine healthy boy, fifth child of Mr. and Mrs. J. E. B., both parents healthy and with good family history. This child was born at full term with same teeth as other cases, being as large as ordinary milk teeth and firmly set in gums. At the age of three weeks the teeth had made an intractable ulcer under the child's tongue, rendering nursing impossible. I extracted them. No hemorrhage or other trouble followed. The family soon moved from the city and I have lost track of them. My cases would indicate that no milk teeth would come to fill the vacancy caused by the exfoliation or extraction of congenital teeth; also that rickets or improper nutrition was not a causative factor in their development. It seems to me to be a more rational conclusion to assign the appearance of congenital teeth to a precocious or premature occurrence of the normal processes in the development and cutting of the milk teeth. We certainly have this precocity in the development and physiologic action of other parts of the human economy.

SURGERY ONE HUNDRED YEARS AGO.

AN HISTORICAL STUDY

BY DR. GEORGE FISCHER.

DEDICATED TO THE GERMAN SURGICAL ASSOCIATION.

TRANSLATED FOR THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION BY CARL H. VON KLEIN, A.M., M.D.

CHAPTER II.—THE QUACK.

(*Continued from page 455.*)

Beside the rupture and cataract operations there was also lithotomy, which was practiced almost exclusively by itinerant operators, the lithotomists (Steinschneider). It is wonderful that the very most difficult operations have always been abandoned to the mountebanks. The learned men were too proud to class themselves with those, by performing the same kind of operations. Therefore it happened that there were too few surgeons who possessed any comprehensive skill. This class of crude empirics, who like other mountebanks, advertised themselves, and as a rule collected a great number of lithotomic patients about them in the spring and fall, arose out of gray antiquity. Hippocrates would not submit to this operation, and subjected himself to others, probably because in his time they regarded the operation as too cruel. So the physicians in Alexandria were obliged to take the so-called Hippocratic oath, which recites: "I will operate upon no stone-patient, but will turn over this part of my practice to the mercenaries following

that business." In Arabia, also, those who operated for stone were subjected to public scorn; there, indeed, the sight of a woman was never permitted to a man. Nevertheless there have always been people who devoted themselves principally to this operation, but practiced their art secretly, and it had descended from father to son or to some relative. In the middle ages the lithotomists traveled through all Europe; Fabricius von Hilden (born 1560) complained sorely that so few surgeons performed this operation, but abandoned it to the surgical frauds (Schnittärzte). In his time they visited the houses, offered their services, and were ready enough to perform the same upon wholly indefinite symptoms. When one of these vagrants in Cologne found no stone in the bladder and let one fall out of his coat sleeve he was seized, sentenced to be flogged and driven out. Some plied their trade so disgustingly that as a relief, especially in the case of children, he had the organ sucked, milked as it were, to draw out the stone. They did not concern themselves as to preliminary treatment, adapting diet or proper after-treatment. They surrounded the operation with such a nimbus that if a nobleman was to be operated upon his vassals must assemble in the church in prayer to implore the assistance of God. Certain lithotomists distinguished themselves particularly; thus, one Merk in Ulm had performed up to the year 1626 over two thousand stone and rupture operations. In Italy the people of Norcia, who were also famous as rupture operators, attained a great reputation. But in the fifteenth century the art of lithotomy was transplanted from their midst to France, as one from Norcia confessed to a certain Germain Colot.

The home of the lithotomist moved to Germany until in the first half of the eighteenth century. At that time the most famous itinerant lithotomist in the Fatherland was the Frenchman, Frère Jacques. Jacob Beaulieu was born in 1651, of poor parents, in the Franche Comté, and as a 16 year old boy, enlisted as a soldier, where he became acquainted with a quack, who operated for stone in the country. After he received his discharge he accompanied a Venetian lithotomist for five years, and then attempted the operations himself. He changed his citizen's clothing for the monastic habit, in which now as Brother Jacques he traveled around and operated with success in many French cities. He lived very frugally, ate only bread, soup and vegetables, and took no money for his operations except a few pfennig for the mending of his shoes and instruments. Manliness and a steady hand, in like degree, distinguished him in his operations as well as coarseness and cruelty. After the incision he was accustomed to say: "Your operation is done. God heal you." Thereupon others put on the bandages. In 1697 he came to Paris and was introduced to the body-physicians of Louis XIV., Fagon and Felix. They saw him operate and admired his skill. He secured the interest of the king, received a free residence with the chamberlain, and was regarded by the common people as a man sent from God. At every operation great crowds of the curious gathered to look on, such that they were finally obliged to place guards at the doors of the hospital to keep back the throngs. Nevertheless an evil star rose over his operations; out of sixty-five who were operated upon in the Hôtel Dieu and the Charité twenty-five died and only thirteen completely recovered, and therefore he was forbidden to operate here. Hitherto he had used an ordinary round catheter, when Fagon induced him to use a pumping probe and furnished him bodies for experiments in operating. Henceforth the results were more fortunate, and in Versailles hospital thirty-eight incisions for stone were all successful. Fagon himself, suffering from this affliction, wished to be operated upon by Frère Jacques, but his friends restrained him and he was cured by that very skilful operator, Maréchal, whom Garengeot saw perform eight successful lithotomies in a half hour. In 1703 the Marshal of Lorgues intrusted himself to the monk after he had twenty-two stone patients taken into his palace and operated upon before his eyes. They all survived, except the Marshal, who died on the following day. Through this Jacob lost his prestige in Paris, went away and would never return. After various tours in the French provinces and Holland he arrived in Amsterdam, where medals were struck in his honor. There he gave instruction in his art to Rau, then professor in Leyden. Frère Jacques then visited Antwerp, where also a medal of the value of sixty thalers, with the legend *Pro servatis civibus*. was struck. After going back to Amsterdam his popularity waned, as they had come to consider Herr Rau a more skilful man than he. Then he went to Germany. In Vienna the king had him summoned; in Rome the pope did likewise. Soon after, in 1714, he died in Besançon; he had already melted down the golden medals. His good reputation was attacked by his rivals, Mery and Saviard; Verdue also asserted that out of sixty patients operated upon, only thirteen had been cured, insomuch that in his own defense he had published in 1702 on eight-page work upon the operations. It was stated in this that he had taken a solemn oath to renounce every reward, to devote his life to helping sufferers from calculi and rupture, to accept from rich people only his traveling expenses, and to show to other surgeons his instruments without charge. In his thirty years he is said to have treated at least 4,500 stone patients, to have deceived no one and to have performed no operation without the presence of physicians and surgeons. Mery's accusation that he castrated in cases of groin rupture, he met with the declaration that he had operated upon 2,000 people without injuring the testicles, the people being the poor, who could not pay for a truss. Various testimonials from body-physicians and others concerning his skill were appended. Frère Jacques introduced the side incision. He made the incision on the left side of the peritoneum, but with no regular method, for he sometimes made it two thumbbreadths higher, and for lack of a lithotomic knife he would operate with an ordinary bread knife. In his first years, when he operated without the use of the grooved sound, he frequently came in contact with the body of the bladder, cut it through and injured the rectum and the vagina; later, with the help of the grooved sound, the operations became safer. He differed from his contemporaries in that he neither prepared his patients for the operation by bleeding and purging, nor did he bind them, but only had them held by strong men.

Rau improved upon his methods. He was also very famous as a lithotomist, and was appointed by the council of Amsterdam to the high office of city operator. In the year 1713 he asserted that he had performed 1,547 lithotomies; they even lied so much as to say that of 1,700 patients he had not lost a sin-

gle one. He kept silent as to the way in which he operated and also of the unsuccessful cases; yet they knew very well in Amsterdam that four patients out of twenty-two had died. When Heister lived there, he often saw Rau operate, but complained that the latter from jealousy and avarice, in the operation courses, for which he received considerable money, openly declared at the operation that he would give no information about it, because he must live, and when Heister also entered the profession, he would keep secret the best points. Heister followed Rau's method in Germany.

Quackery was not confined to these mountebanks, but that most approved class of men, the executioners, competed with the surgeons. They enjoyed the reputation of being able to cure those diseases which had their origin in witchcraft, and, since they heard the confessions of the witches upon the rack, they must have knowledge of the black art. They also had the privilege of treating surgical cases. They set the limbs which had been fractured by the machines of torture, and applied to the healing of the wounds made by the rack, certain salves which they prepared out of animal fats. The skill thus acquired by them was used as a means of coming in contact with people of other callings, hoping by this means to redeem their despised position. So it happened that frequently they supplanted the surgeons in the treatment of wounds, fractures and luxations, and did a great deal of mischief. The Leipzig faculty (in 1730) was called upon to attend a boy with a broken arm which had been bound so tightly by a torturer, and compressed with splints, that having become inflamed it could not be raised from the shoulder without pain and loss of blood. Dog-fat was their universal balsam. The drinking of the foaming warm blood of beheaded persons would cure epilepsy; for this purpose they sold the blood of a young woman or a young man at the highest price, while the blood of a Jew was the cheapest. They were mostly consulted by the lower classes, but the better conditioned also had resort to the hangman. C. C. von Siebold relates that even His Reverence the Abbot, who in his old age was afflicted with an ossification of the parotid, betook himself to the executioner, with whom, in a healthy condition, he would never have associated, much less allowed himself to be touched by him.

There could be no greater affront to the medical profession, than that given when King Frederick I. of Prussia, ignoring his duty to give the highest satisfaction to all, appointed the executioner, Coblenz in Berlin as court and body physician. The whole collegium medicum protested but without result. For a long time afterward, in the royal armory in Berlin the sword was exhibited with which Herr Coblenz had severed 103 heads, his father 19, and his grandfather 68. In Prussia in 1725, the executioners were forbidden to attempt cures, but this did not last long, for again in 1744 Frederick the Great allowed them after having passed a certain examination to treat fractures, wounds and sores. As the Berlin physicians strenuously opposed this, the monarch issued an order from Potsdam, which must bring the blush of shame to the faces of all German surgeons: "Since His Royal Majesty has not licensed the executioners indiscriminately, but only such as are competent to cure, he will let the matter rest there, as the public will be able to discriminate in the necessary cases; and when the surgeons have become as skilful as they have professed in their published representations, then everyone will sooner trust them than resort to an executioner for a cure; but in any event since there are ignorant surgeons, the public must not suffer thereby, but that class must acquiesce if a man would rather be treated and cured by an executioner than please them and remain lame and a cripple. And further, let the surgeons first become properly competent and skilful, and then the cures of the executioners will cease of themselves, and without any forbidding." In Saxony also, as in Prussia, the treatment of fracture, humps and boils, was permitted to the executioners; and in the principality of Salem, in Baden, they were allowed to practice medicine as well as surgery, so late as 1807. On the other hand in Austria, as early as 1753, they were forbidden to treat both internal and external diseases.

Among the people the calling remained despicable, so that the government found it necessary to break up the prejudice. In 1731 no Austrian was considered more dishonored who ate, drank, or traveled with an executioner, or handled a carcass, or removed it from a stall; on the other hand, from this time on, it was considered no disgrace in Saxony and Brunswick for the bath-keepers, surgeons and barbers to take in charge the criminals who had been under torture. In Prussia the executioners' curing ceased of itself later, when the practice of every physician was made dependent upon prescribed examinations and the approval of the magistrates; but later in 1819 the honor of bearing arms (Waffenehre) was extended to them and in 1827 they received all the rights of burghers.

The business of the executioners placed the courts of justice in a position to resort to the advice of the surgeon. This was the case in the torture chamber, and necessitated the appointment of so-called rack-physicians. The Malefiz Courts still existed everywhere; as late as 1749 the last witch was burned in the German Kingdom, a 70 year old nun, in Wurzburg, while the last law against witchcraft on German soil appeared in 1782 at Glarus in Switzerland. Torture, which at the beginning of the century was still very general, was abolished in Austria in 1776. It was a professor of surgery in Vienna, Ferdinand Leber, who, by continued agitation, and written reports worked untiringly for the final abolishment of this order of penal courts. With the help of the professor of law, Baron von Sonnenfeld, he prevailed upon the empress, Maria Theresa, after long continued efforts, to carry out this reform, against which the criminal courts protested in the most vigorous manner. Leber administered for nineteen years the melancholy office of a rack-physician, and as he says, "had only too often seen that an actual criminal with strong, apathetic nerves, endured the torture with martyr-like courage, and lied as to his guilt, while the innocent, overcome by the cruelty of the pain, acknowledged crimes which they never had committed." The principal means of torture consisted of the thumbscrews, the so-called ladder (Leiter), which were still provided for in the constitutio criminalis Theresiana published in 1768, so also the boot and the bowstring (Schnüre). The torture was refined in a marked degree in the kingdom of Bohemia, where a torch made of twelve tallow candles was burned under the shoulders of the victim while he was stretched out upon the ladder. The cord torture gave occasion to the noble council of the resi-

dence city of Hanover in 1754, to ask of the surgeon L. Heister, his opinion as to whether it was possible for a judge, sitting some distance from the victim of the cord torture, to discern whether the cords with which the limbs were mutilated, cut to the bone. Heister answered that this was not possible, "Indeed, I will say further that a whole corps of surgeons sitting down by the victim could not be certain whether the constriction cut as deep as the bones of the arm without bending close down over the arm and feeling of it carefully." When during the French Revolution the *guillotine* was submitted to the National Convention on Executions, surgery was obliged to come to the help of justice. The guillotine was a machine which had long been in use in Persia and its forerunner may be said to be the falling ax (Fallbeil), by means of which, according to Botalli's plan, the Amsterdam surgeon John Van Horn, amputated limbs in a cruel manner. The convention considered that beheading was more fitting to a free people than the noose, and they called the Parisian executioner before them, to hear his judgment of the instrument. As he, on account of his lack of anatomic knowledge, had some doubts as to the position of the joints of the neck, the National Convention referred him to the Académie de Chirurgie. Louis, the secrétaire perpétuel of that body, gave it as his opinion (1792) that the blade of the instrument should not be square and horizontal as that which physician Guillotin had made, but should be convex and run obliquely from above downward, so as not to work as an ax but as a knife; and the back of the blade should be heavy and strong enough. He suggested that it be investigated whether it might not be necessary to sever the head of the poor victim by means of a cresent blade, which spanned the neck close to the base of the skull. On the strength of this opinion the National Convention decreed that the instrument should be made in this way and authorized the administration then in power to provide guillotines for the whole kingdom for which an appropriation of from six to seven million livres was required. The Paris Reign of Terror did not concern itself with the outcry of the English physician Kentish, who declared that death by guillotine was the most painful of all the methods of execution in war. Indeed he admitted that the beheading took place quickly, but asserted that death did not follow soon enough, since life continued for a little time. A hen whose head has been cut off runs around the room, and he argued that the sensations corresponded to the movements, and that pain followed the decapitation was proven by almost every section of a mutilated eel or angleworm. To the Englishman it was not unthinkable that the unhappy king Louis XVI., when after decapitation, his head was shown to the people by the executioner, still retained consciousness and a spectator of his own tragedy. The same ideas gained admission to the Prussian cabinet, for in the year 1804 they forbade the making of galvanic experiments with severed heads, because by that means sensation and consciousness might be re-awakened, if only for a moment.

The nuisance of the mountebanks was by no means confined to Germany, but *foreign countries* enjoyed it in a high degree. The way it appeared in France can be seen clearly from a speech of the deputy Fourcroy in the legislative assembly. He said therein: "Since the decree of the 18th of August 1792, which overturned the universities, faculties and learned societies in France, there is no regular order of physicians and surgeons. The completest anarchy reigns in place of the former order. Those who have mastered their profession find themselves mingled with those who have not the slightest idea of it. Almost everywhere patents are granted to one, the same as to another, without distinction. The life of the citizen is in the hands of avaricious as well as ignorant men. The most dangerous empiricism, the most shameless quackery everywhere abuse confidence and credulity. Not a single proof of science and skill is demanded. Those who have studied since they were seven years old, in the three medical schools established by the law of 14 Frimaire, year 3, are scarcely in a position to prove their acquired knowledge, or to differentiate themselves from the impostors who were everywhere to be found. City and country were in like measure corrupted by mountebanks, who dispensed poison and death with a recklessness which the old laws were unable to check. The most murderous procedure had been substituted for the first principles of obstetrics. Hangmen and shameless blacksmiths usurped the title of officers of health, in order to cover their ignorance and avarice. Never has the increase of dangerous proprietary medicines been so marked as since the time of the overthrow of the medical faculties." Even in the beginning of this century the oculists in France practiced charlatanry on an enormous scale; everywhere were to be found the advertisements of medical oculists and on every street corner were displayed their powders, anti-ophthalmics, collyriums etc. In Italy there were many quacks, although perhaps the nuisance was less general there than in Germany, and old women did not enjoy so much credit among the lower classes. The real physician and surgeon was more respected and oftener employed by the average man. There also, medicine and surgery were sharply separated from one another so much so, that the Italian physician almost never practiced surgery. Shaving fell entirely to the lot of the hair-dresser, and by the end of the century he no longer gave baths as a part of his business. In Italy as in Austria clysterizing belonged to the business of the apothecary in most districts; the surgeon would have considered it a great affront to have this function ascribed to him. In wealthy Italian families, all of which had their own house physician and house-surgeon, consultations were so well regarded that seldom did a rich Italian die under the treatment of a single physician. But in no country did one come upon so many mountebanks' advertisements as in England. London swarmed with charlatans who extolled their drops and tinctures in the London *Chronicle*, and their gonorrhea specifics on every street corner where they could be most opportunely read. The quacks were numerous because the great physicians were too expensive, never charging less than a guinea for a visit. The majority resorted to the apothecary, who made his visits gratuitously and charged only for the medicine. The English apothecary whose place of business was never visited by physicians, was frequently, physician, surgeon and obstetrician, and was allowed to practice after paying the fees of one of the colleges. "The setting of limbs" was considered by the average man as a matter which required no special science and which the most ignorant blacksmith or veterinary surgeon could learn quickly and perfectly—simply the teaching of the grandfather to the father, from him to his son. The rupture surgeon preyed upon the pub-

lic, stating in his advertisements that his father and his grandfather had both suffered from rupture; the coucher sought to prove his skill by asserting that he had lost an eye in the service of the emperor and he showed his patients a large document according to which he had served among the soldiers of His Majesty the Emperor. How was it possible through such absurdities to be able to deceive the people! The epidemic of quackery spread even among the better classes, to that in the middle of the century an English judge said to the jury that he believed that a limb-setter in the country understood as much if not more about the treatment of fractures than any of the most eminent surgeons in the whole kingdom. The English government quietly allowed the nostrum swindle to increase; indeed, when a formula of a certain Bowles for the radical cure of rupture made a great sensation in the year 1725, and was bought by Thomas Renton for the state, they paid for it £5000 and £500 yearly royalty. But in spite of all swindles there was no country where there existed relatively a greater number of scientific surgeons, physicians and obstetricians, or where they stood in higher respect than in England. In Russia surgical quackery stood under the highest protection. In one village, near Moscow there dwelt in 1781, a peasant, who was consulted by the high and the low, principally in cases of fractures and luxations; he was often driven into the city with six horses. His reputation even reached the throne of the Empress Catherine. She issued an order providing that the pupils of the great war hospital in Moscow, should study with this peasant, two at a time, for two months each.

The German government tolerated the mountebanks and licensed them to practice on condition that they and their medicines should be examined by the collegium medicum. Only in the second half of the century did the light begin to break; it was seen first how general and great was the misery which these people spread over Germany, and a remedy was sought. Austria led the the way, and in 1753 and at repeated intervals later, forbade all mountebanks and itinerant operators for all time to treat any kind of disease or to stand in public booths. Saxony followed in 1781. Who could expect that all the German states had advanced in like measure? As late as 1789 the oculists and rupture-surgeons operating in the principality of Lippe after passing a required examination went at it again. Supervision of quackery by the small states was elusive, for if the charlatan were called to account in any place, he quickly went into the neighboring dominions of another ruler where he was well received. The law alone was not able to remedy the evil, only a healthy common sense could eradicate this plague. It was just the same with the beggars. The state would not find it necessary to take action against mendicancy if nobody gave to beggars; so the quacks would have ceased to exist if there were not always people who placed confidence in them. The credulous had only to withhold payment, which was generally demanded in advance, and to wait until the quack had fulfilled his promises; the deception would then soon have been at an end. In order to enlighten the people: First, a physician of Lausanne published a treatise for the common people in 1761. The work created an enormous sensation, was translated into many languages, and in the following seven years, appeared in not less than sixty editions. In this book, and also in a medical weekly called *Der Arzt* (the physician), which Dr. Unger published (12 volumes 1759–64), public attention was directed in easy, intelligible style to the great dangers which attended the methods of the mountebanks, and the people were warned not to be blinded by their gaudy equipages, and not to trust their titles and testimonials, which were false and forged. The remedies which were recommended for the nuisance of quackery were various. The most radical was a sound flogging. In Montpellier the magistrates were given the right to take every charlatan whom they caught and set him upon a lean jackass, with his face toward the tail. In this position he was led through the whole city, amid the jeering laughter of the people, was beaten by them, covered with mud, worried and railed at from all sides. It was proposed in order to check the superstition of the people to strike from the calendars all the astrological rules concerning medicine.

Some believed that it would be a check to impostures, if the clergy were instructed in medicine as they had been earlier, when the care of the sick fell to them. Up to this time they were forbidden to practice medicine in Austria, the penalty being a hundred ducats (1770), and medical practice was permitted only to the Brothers of Mercy in their cloisters and hospital after a prescribed examination, and they were allowed an apothecary for their own use. On the other hand, in the year 1773 the practice of medicine was permitted to the clergy by the parliament of Rouen, and Napoleon restored the act of the assembly, which gave them physician's privileges. In Germany there followed a decree of the Landgrave Louis of Hesse-Darmstadt, that in future no student should become a clergyman unless in the last year of his academic studies, in Giessen, he had one course. (Tissats Anleitung für das Landvolk.) The Universities of Wurzburg and Landshut required that their divinity teachers should study anthropology. This German regulation was copied in Sweden, where, at the examination, a candidate in theology was required to have heard one course of lectures in pathology. Even Hufeland, so late as 1809, declared in favor of the medical practice of the country clergy, excepting in surgery and obstetrics, in order to limit quackery.

Has quackery died out in Germany in the last hundred years? Dare our age of progress venture to rebuke the preceding century for inaction? Not in the least. Charlatanry flourishes in our day just as rankly as then, and their lies are just as brazen. The number of the nostrums advertised daily would fill whole volumes; the newspapers teem with indecent advertisements of treatment of syphilis and sexual diseases. Old women as healers have no more died out than have blacksmiths and shepherds; it was scarcely twelve years ago, that in my home a shoemaker enjoyed the confidence of the regnant royal family. In quantity and specialization the advertisements have multiplied in a manner never before known and they enslave the people in superstition and cruelty. If at present in Germany no mountebanks stand openly in their booths in glaring raiment and sell death and misery with their pills and essences to the blinded people, and no executioner obtains permission to treat fractures, yet it is only the form which has changed, the facts remain about the same. The little principality of Schwarzburg-Rudolstadt furnishes a picture of the conditions amid which the nostrum swindle is carried on under protected privileges. Year in and year out hundreds of drug dealers, emerge from the Thurin-

gian forests and disseminate their murderous wares throughout Germany, Austria and Switzerland. In this little corner of the earth is sold more opium, aloes, rhubarb, etc., than all the physicians of Germany prescribe, or all the apothecaries of Germany sell. In the district of Königsee, there are about 1300 inhabitants, some twenty poisoners, called chemists, and 350 dealers in poisons, called balsam-traders. The majority of the specifics handled are in the form of pills. A single chemist prepares every year from four to five thousand of such pills, and uses annually from ten to twelve pounds of opium for the so-called children's pills, with which children are lulled, sometimes into a temporary, sometimes into an eternal sleep. This traffic in poisons made the dealer in a few years a rich and locally influential man, and was handed down from father to son, and to grandson. The princely authorities of Schwarzburg do nothing whatever to oppose this abomination; in fact they encourage it, because it brings a large amount of money into the country. (*Spener'sche Zeitung*, January 1874). In the year 1874 the number of quacks, officially obtained in the kingdom of Bavaria, amounted to 1156, consisting of 911 men and 245 women!

(*To be continued.*)

PECULIARITIES OF THE SURGICAL DISEASES AND INJURIES OF THE NECK.

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(*Continued from page 458.*)

Tumors of the thyroid body.—Gaseous tumors do not exist in the thyroid body. Aerial goitres are really tracheoceles. Cystic tumors are represented especially by hematoma following an injury or due to a hemorrhage in a preëxisting cyst either from a traumatism or from a puncture with a too large needle and removal of all the liquid or enough to destroy the equilibrium of the pressure. The cyst originally called a hydrocele is then called a hematocele or a form of angioma. Pulsation in thyroid tumors is not uncommon, owing to the pressure on the great vessels. Lymphangioma represents a form of goitre. Congenital serous cysts of the thyroid are very rare. They must not be confounded any longer with the serous cysts of the neck; the gland is usually atrophied by the cyst, like salivary glands when cysts are located in them. Congenital mixed cysts are the most common; they contain thyroid vesicles, pavement epithelium, cartilage and muscular fibers. A peculiarity of the thyroid cysts is that, whether small or large, they may form sudden congestion or rupture, cause sudden great dyspnea, which may be rapidly fatal. Cystic growths of the thyroid should be enucleated, as this avoids any possible injury to the recurrent laryngeal nerve, and also avoids the possibility of cachexia strumapriva by leaving all the gland that is not diseased.

Solid tumors are represented mostly and almost entirely by goitres; although they sometimes contain cavities or cysts, yet their walls are usually so thick they are considered as solid tumors and are described with such. The great majority are simple hypertrophies.

Goitre is an enlargement or hypertrophy of the thyroid body without structural changes; it may involve the whole region or be unilateral or bilateral; it is more frequent on the right side.

The causes of goitre in general are not yet known. Women are more liable; children are seldom affected before ten years old. The alterations as regards size and shape are variable. The microscopic alterations consist in cavities, channels and compartments lined by a pavement or cylindrical epithelium. This form of goitre is the primordial form; it is epithelial or follicular; the other forms of goitre are only modifications of it.

The symptoms are those of a hypertrophied gland in general; the peculiar symptoms are the shape of a horseshoe; the movements follow the larynx; the veins developed on the surface, the peculiar deformity of the region, the pressure symptoms on the cerebral and facial circulations. The course is usually very slow and sometimes irregular. The duration is ordinarily very long.

The prognosis becomes serious with the degree of pressure symptoms and the complications. The true treatment of goitre consists in extirpation; especially if it grows and if the pressure symptoms are serious. We must bear in mind that an apparently innocent goitre may suddenly enlarge and cause suffocation or even immediate death.

The internal treatment consists in long continued thyroid feeding, which will diminish the size of a goitre and even bring on a condition of atrophy, so that the danger lies in abolishing the functions of the thyroid. Sodium phosphate has the same effect and consequences. We should be careful in using anesthesia if there are already signs of pressure; the use of morphin or cocain is preferable. Operation with cocain is often possible; the pain does not seem to be beyond endurance; the dangers of the operation are much lessened without anesthesia; there is much less turgescence of the veins than when an anesthetic is used and the dangers of complications from coughing and vomiting are thus diminished.

The incision should extend from one side of the neck to the other in a very sharp and long curve with convexity downward toward the sternum. The upper part of the tumor had better be attacked first, and the upper vessels tied, then the middle or the inferior; the hemorrhage is reduced to a minimum by careful hemostasis by means of forceps and double ligature of the larger vessels before incising between the ligatures. When the inferior thyroid artery is being dissected and tied, by engaging the patient in a conversation for a few minutes the possibility of including the recurrent laryngeal nerve in the ligation is avoided, as the altered voice immediately warns the surgeon of the danger. In the lower right angle is the part which often penetrates into the mediastinum behind the sternum; there exist usually at that point large veins. When possible lift the gland from its bed and encircle the pedicle with an elastic tubing before enucleating, as recommended by Rose and Poppert. The dangers are hemorrhage and asphyxia by blood flowing into the trachea when it is torn; to avoid these perform preventive tracheotomy when possible. In the hypertrophied thyroid the arteries are larger than in the normal, but they are in their usual situations. Be careful not to tear the trachea again; if this happen, introduce at once a tracheotomy canula, a very long one. In exophthalmic goitre Kocher resorts to ligatures and ties only three arteries. In one case,

when four arteries were ligated, tetany set in immediately. Intracapsular enucleation is the safest, but is not always feasible. When the difficulty of tracheotomy is due to pressure, division of the isthmus may afford relief.

The forms, varieties and complications are the following, according to their number and extent: Unilateral goitres, bilateral goitres, whole or entire goitres, aberrant or ganglionic goitres; plunging or retro-sternal, retro-tracheal, retro-esophageal, peri- and retro-vascular goitres; supra-clavicular goitres, colloid goitres. According to the etiology: Primordial goitre, sporadic goitre, endemic goitre, epidemic goitre, congenital goitre, menstrual goitre, pregnancy goitre, old age goitre, metastatic goitre. According to the symptoms: Goitre voice, cystic goitre, pulsating or external or aneurysmal goitre, venous or varicose goitre, cavernous goitre, solid goitre, fibrinous goitre, fibrous goitre, calcified goitre, osseous, cartilaginous goitre, hydatid goitre, aerial goitre, constricting goitre, diffuse goitre, goitre with a broad base, goitre adherent to trachea, sclerotic goitre. According to course: Acute, sub-acute, chronic. According to prognosis: Benign, malignant. According to complications: Hemorrhagic (in a cyst or interstitial) or suppurating goitre, congestive goitre, exophthalmic goitre, goitre with emphysema of lung, due to impeded respiration, goitre with chronic bronchitis or tracheo-bronchial catarrh, with pulmonary edema, goitre with dilatation of right heart, goitre with cerebral anemia due to compression of the carotids, goitre with weak pulse, inflamed goitre or strumitis. The foregoing designations indicate the meaning of the form or varieties and the peculiarities attached thereto. However, some of them need additional explanation.

Aberrant goitres are those found in the supernumerary thyroid bodies, *i. e.*, those in the lobules developed independently and which failed to unite with the body of the gland; they are sometimes called ganglionic goitres because they resemble hypertrophied lymph nodes. Peri- and retro-vascular goitres are those which send processes around and behind the large vessels of the neck. Colloid goitre is one that attains the largest proportions; it may be congenital; it begins to grow when the child attains 7 or 8 years; after 40 there is no more risk of having it; females are much more often affected (only 26 men in 551 cases); this is due to the influence of menstruation, pregnancies, accouchements; runners are much more affected by goitre, as also all professions where the neck is stretched or efforts are made; malaria, by causing internal congestion, favors the development; heredity is not as well established as for endemic goitre. Endemic goitre is peculiar on account of its connection with cretinism; in all countries, in all climates and in all races, there are regions where cretinism prevails endemically and it is associated with endemic goitre. This goitre is the initial basis of a degeneration of which complete cretinism is the last stage of culmination; the influence of heredity is undeniable; 80 per cent. of cretins are born of goitrous parents. The action of water is also undeniable, as goitre may develop or stop, according to the changes in the water, and it was thought that the absence of iodin in the water was the cause; it is now believed by some that goitre is an infectious disease whose parasite is in the water. Epidemic goitre is met with where there is an agglomeration of people, prisons, boarding schools, barracks, but is only observed in goitre countries. Goitre in old people, after 50, gives bad results when operated upon. Cystic goitre is chaacterized by cystic cavities in the goitre; these may be unilocular or multilocular; they must not be confounded with the simple serous cysts of the thyroid above described; although their origin is the same yet the cysts are amenable to a different treatment as described also above, and are a separate disease clinically. Aerial goitres are simply cases of tracheocele. Sclerotic goitre is one which has undergone fibrous degeneration. Acute goitre is characterized by a sudden growth due to congestion, inflammation and hemorrhage. Hemorrhagic goitre is due to hemorrhages occurring either in the cystic cavities as in cases of cysts of the thyroid, or in the walls, or interstitial hemorrhages.

Exophthalmic goitre, or Basedow's or Graves' disease, is accompanied by protrusion of the eyeball and tachycardia with irregular, frequent, loud sounds; the heart is dilated; there is also alteration of the normal sounds; the arteries of the wrist and head throb. These symptoms are due to changes in the middle and lower ganglions of the sympathetic. Suppuration is very rare. There is a surgical exophthalmic goitre, due to the pressure upon the nerves, purely mechanical and very distinct from Graves' disease. In goitre with a feeble heart and a weak pulse great care should be exercised in operating. Inflammation of a goitre is called strumitis; it is much more frequent than thyroiditis or inflammation of a normal thyroid; it is serious because of the enlarged condition of the organ. Tracheotomy may be performed for relief until the pus is located and evacuated by incisions or by dilatation upon a guide. The diseases or complications of goitre are wounds, contusions, congestions, inflammations, hemorrhages, cancerous degenerations.

All the other solid tumors of the thyroid body are rare, sebaceous cysts, dermoid cysts, fibrinous hematoma, lipoma, adenoma, tuberculoma, syphiloma, fibroma, myxoma, neuroma, chondroma; encephaloid, melanotic, colloid, epithelioma, carcinoma, sarcoma, scirrhus.

Tuberculoma and diffuse tuberculosis are rare; they have never been observed primarily; they existed secondarily seven times out of one hundred consumptives, especially in the acute form; sometimes fistulous openings remain. Syphiloma is represented by gummata which have been found in children affected also with visceral syphilis. Fibroma of the thyroid body is barely known. A case of osteoid chondroma is reported; also a case of osteoma, but this case is doubtful. Sarcoma is more frequent, and has been observed in all its varieties; the difference between hypertrophy and sarcoma is that usually the hypertrophy has the same shape as the gland, whereas the sarcoma has not. Carcinoma is also among the frequent tumors of the thyroid outside of goitre. It is sometime connected with the esophagus or larynx; it may be metastatic from the cancer of some other part. The primitive cancer is the one here considered; it is rare, and is met especially in goitrous countries; its malignancy is great; generalization is the rule and the secondary tumors are found especially in the lungs, the mediastinum, and the bones. Such cancers are transformations of goitre; they are at first movable like all thyroid tumors but soon become adherent and immobilized; the limits soon become diffused and it is impossible to isolate them with the fingers behind

and feel the carotids pulsate; this is an important diagnostic sign. The palliative treatment consists as for the other tumors, in tracheotomy and feeding by esophageal tube.

Surgical operations on the thyroid body.—The following remark covers the peculiar features in operating on tumors of the thyroid other than goitres, that there are usually no large vessels and enucleation is possible because in growing, the tumor compresses the tissue of the gland and the vessels peripherally.

SURGICAL DISEASES AND INJURIES OF THE SUPRAHYOID OR SUBMENTAL REGION.

The *congenital malformations* of this region present no peculiarities worthy of notice. The *acquired malformations* of peculiar interest consist in the double chin produced by an accumulation of fat in the region.

The *swellings* of the region have nothing characteristic.

Burns are of peculiar importance because the resulting cicatrices may draw the skin of the chin and of the lower lip causing eversion of the lips and its consequences.

Contusions here are rare because of the protection of the chin. In hanging, the compression may often bear on the base of the tongue; the vessels, nerves and larynx are uninjured.

Wounds of the suprahyoid region are very seldom homicidal but almost always suicidal. Penetrating wounds only are of importance; punctured wounds are very rare; they are only observed in the cases of "hooking" of the chin. Incised wounds when transverse usually gape a great deal, but very little when longitudinal; usually the suicide, throwing his head back, cuts higher than he intends, in the suprahyoid region, so that the borders of the stretched sternomastoid protects the vessels. The penetrating wounds open the cavity of the mouth, injure the tongue and epiglottis; there may be suffocation due to the blood or other foreign substances, or to the tongue or epiglottis falling back and occluding the larynx; there is usually much hemorrhage from the wounding of the lingual artery. More than in all injuries of the neck we meet here with swelling and edema of the arytenoepiglottic folds, which are directly injured. The gaping is especially great when the head is thrown back; the saliva and food pass out of it during deglutition. Wounds of the epiglottis cause much suffocation, difficulty of speech, of deglutition, coughing; thirst is a common symptom. Lacerated wounds have been observed in several cases of "hooking" of the chin. Gunshot wounds seldom penetrate posteriorly because the head being usually thrown back the revolver is naturally directed upward and rests under the chin, which is usually carried away by the shot. Poisoned wounds, bites and stings present nothing peculiar here. Foreign bodies in the wound are here represented by alimentary matter. The shock is as great here as in all injuries to the air passages on account of the dyspnea and aphonia and dysphagia.

Neuroses are of no special interest nor are softenings and *indurations*. *Congestion* or hyperemia presents nothing peculiar. *Inflammations* of the skin are the same as those which affect the beard of the chin; they are of no peculiar interest.

Superficial cellulitis, *i.e.*, developed between the fascia and the skin, is of no peculiar consequence.

Deep cellulitis develops between the fascia and the mylo-hyoid muscles and is more serious; it must not be confounded with the cellulitis developed above the mylo-hyoid and invading the floor of the mouth. Adenitis of the submental or digastric glands is the usual starting point of the inflammation of the region; it extends to the surrounding connective tissue and becomes an adeno-cellulitis and phlegmon; it is accompanied by great swelling increased by mastication and deglutition.

The inflammation of the excretory, salivary ducts is rare; it is a propagation from and through the mouth; there is retention of saliva, sometimes of pus; the needle and probe strike no calculi; in some cases the gland itself is swollen. Chronic inflammations of the region are most rare.

Gangrene presents here no peculiarities, nor do *ulcers* or fistulæ. *Gaseous tumors* are almost unknown in this locality.

Liquid tumors are most commonly cysts. Congenital branchiogenic cysts of the region of the hyoid bone extend sometimes into the mouth and resemble ranulæ, but they are independent of the submaxillary and sublingual glands. Simple serous or suprahyoid grenouillettes have been studied only recently; they are usually seated underneath the cervical fascia; they are very often an extension of sublingual cysts or grenouillettes through the muscles of the floor of the mouth. Dermoid cysts sometimes remain dormant for a while and then become apparent; if by the history the cyst may be traced to infancy it is a dermoid cyst.

The *solid tumors* of this region which are the most common and peculiar are the secondary involvement of the digastric or submental lymphatic glands in cases of erosion of the middle of the lower lip; they are comparatively seldom involved and when thus involved the whole lip is diseased; still they must be looked for, because if overlooked and neglected they may be the starting point of a new growth which will require another operation later.

Foreign bodies in salivary glands are more frequent in Wharton's duct; they may be a bristle, fishbone, straw, hair of a tooth brush. There is pain, swelling of gland, abscess, fistula. They may give rise to salivary colic. The treatment is that of all similar cases. All the other tumors are rare and present no peculiarities.

Surgical operations of the supra-hyoid region.—The deep surgical operations of the supra-hyoid region opening into the mouth are serious for all the reasons explained above in connection with the wounds of the region. These are still more so if there is loss of substance and the edges can not be united; the result is a fistula with its possible consequences.

SURGICAL DISEASES AND INJURIES OF THE SUBMAXILLARY REGION, *i. e.*, LATERAL SUPRA-HYOID OR DIGASTRIC TRIANGLE.

The *congenital malformations* present no peculiarities except that at times the orifice of a branchial fistula is observed there. *Acquired malformations* present no peculiar interest, neither do swellings.

The *diseases of the skin* most frequently observed here are morphea, sycosis, acne, sarcoma of the skin.

The *injuries* present some peculiar interest because they may injure the facial or the lingual artery, or the hypoglossal nerve and also because they may penetrate into the mouth. In regard to the diseases of the deep parts it is well to state here at the outset and

to bear in mind that the overlying lymphatic glands are more often affected than the tissue of the submaxillary salivary gland itself and that practically it is immaterial which is involved.

Neuroses present no peculiarities, nor do *softenings* and *indurations*.

Hyperemia is represented here by the *submaxillary mumps*, seated in the salivary glands, very rarely existing independently, and usually associated with parotid mumps.

Inflammation under the form of phlegmon is very common in this region. It is usually due to lesions of the face, mouth, tonsils, and especially dental caries, with periodontitis. It usually begins in a lymphatic gland as an adenitis, then invades the connective tissue around or becomes an adeno-cellulitis; this adeno-cellulitis seldom invades the neighboring regions, especially the infra-hyoid. Inflammation and abscess of the salivary gland itself is extremely rare. Osteo-periostitis from diseased teeth is often confounded with cellulitis; in the former the swelling corresponds to the body and to the border of the maxilla; its tendency is toward the face and the masseter portion of the check; the vestibule is painful and sometimes fluctuating. In adeno-cellulitis the swelling exists below the maxilla and has a tendency toward the neck. Chassaignac's subangulo-maxillary adeno-cellulitis is fixed under the angle of the jaw, and is due to the difficult eruption of the wisdom tooth.

Ludwig's acquired or infectious submaxillary angina is characterized by excessive swelling and pain; the tongue is swollen and immovable; the mouth is distended in front; there is difficulty of swallowing; it may terminate in gangrene; it often ends in death. The treatment of these abscesses consists in evacuating the pus as soon as possible; incisions should be made under and parallel with the inferior border of the maxilla, so that the cicatrices will not show; by using the method of dilatation on a guide the evacuation takes place when the exploring needle has located the pus, and there is no cicatrix of any consequence remaining.

Retropharyngeal abscesses often point toward this region, although they may burrow down into the mediastinum; in the former case the large vessels are between the pus and the surgeon's knife. It is best to try and evacuate through the mouth, to avoid the course of the large vessels and nerves. An incision on the middle line of the pharynx, if it will accomplish the object, is preferable as safer; it is well then to place the patient in Rose's position to prevent the entrance of pus into the larynx.

Gangrene is sometimes met with in this region as a termination of violent infectious inflammations. Scrofulous *ulcers* are not rare in children as a result of suppuration of the lymphatic glands of the region. *Fistulæ* are rather common; usually they are due to diseased teeth and to the tuberculous lymphatic glands, to salivary calculi developed in the gland itself.

Gaseous tumors are sometimes seen under the form of pharyngocele.

The liquid tumors most common are various cysts. The most frequent are the salivary cysts due to retention of the saliva resulting from a more or less complete obstruction of the intra-buccal portion of Wharton's duct. Hydatid cysts have been observed. Cysts from cancerous degenerations are not rare.

The most common solid tumors are strumous, tuberculous, syphilitic adenoma. Cancerous adenoma is comparatively frequent; it is usually secondary to cancerous lesions of the face, mouth or tongue. All the other tumors have been observed but are very rare. It is very seldom that the salivary gland itself is the seat of the growth; if the saliva flows through the apex of Wharton's duct it is not the gland that is affected. Practically it is immaterial.

Salivary calculi are peculiar to this region; they give rise to pain and swelling; sometimes abscesses are followed by fistulous openings, temporary or permanent; the calculi sometimes occupy the center of the gland or the deep surface and the most important symptoms, as also the fistulous openings are in the mouth. They are diagnosed by searching carefully for the opening of the fistula and probing it, when the peculiar click will be felt; if necessary, a needle thrust deeply through the gland in several directions will strike the calculus if it be present.

Surgical operations of the submaxillary region.—Tumors should be removed through the mouth whenever possible, to avoid outside cicatrices and disfigurement. The removal of cancerous glands should be undertaken early, because they soon become adherent to the maxilla and to the deep structures with all the following evil consequences. The structures liable to be injured in an operation in this region are the facial artery, the lingual artery, the hypoglossal nerve; the mouth may be opened.

(To be continued.)

SELECTIONS.

Dr. S. Weir Mitchell's Experiments with the Mescal Button.—The *British Medical Journal* for December 5, contains an entertaining account of his personal trial of the anhelonium lewinii or "mescal button." He begins by saying:

At 12 noon of a busy morning I took fully 1½ drachm of an extract of which each drachm represented one mescal button. I had in a half hour a sense of great gastric discomfort and later of distension. At 1 P. M. I took a little over a drachm. Between 2 and 3 P. M. I noticed my face was flushed, the pupils were dilated midway, the pulse 80 and strong. I had a light sense of exhilaration, a tendency to talk, and now and then I misplaced a word. The knee-jerk and station were normal. Between 2 and 4 o'clock I had outside of my house two consultations and saw several patients. I observed that with a pleasing sense of languor there was an unusual amount of physical endurance. I went rather quietly, taking two steps at a time and without pause, to the fourth story of an hotel, and did not feel oppressed or short of breath. This is akin to the experience, as I learn, of the mescal-eating Indians and to that of many white men.

Meanwhile my stomach was more uncomfortable and I saw the first evidence of any change in my color records. On closing my eyes (while in my carriage) I held longer than usual any bright object just seen. As to this, however, I am not as sure as I am concerning the later phenomena. About 4:10 P.M. I drove home and after taking half an ounce of extract in three doses I lay on a lounge and read, becoming steadily more conscious, at first of a left frontal pain (not severe) and soon after of a dull occipital ache on both sides and at or about the occipital bosses. Yawning at times, sleepy, deliciously at languid ease, I was clearly in "the land where it is always afternoon." At 4:30 P. M., rising to make notes, I became aware that a transparent, violet haze was about my pen point, a tint so delicate as at times to seem doubtfully existent.

At this stage of the mescal intoxication I had a certain sense of things about me as having a more positive existence than usual. It is not easy to define what I mean and at the time I searched my vocabulary for phrase or word which should fitly state my feeling. It was vain.

At this time, also, I had a decisive impression that I was more competent in mind than in my every-day moods. I seemed to be sure of victoriously dealing with problems. This

state of mind may be easily matched in the condition of some men when pretty far gone in alcohol intoxication. My own mood was gently flattering, a mere consciousness of power, with meanwhile absolute control of every faculty. I wrote a long letter of advice dealing with a rather doubtful diagnosis, and on reading it over was able to see that it was neither better nor worse than my average letter. Yet the sense of increased ability was so notable that, liking to test it, and with common-sense disbelief in its flattery, I took up a certain paper on psychology, which a week before I had laid down in despair. I grieve to say that it was less to be comprehended than ever. My ignorance would have remained bliss had I not made the experiment. I next tried to do a complicated sum, but soon discovered that my ordinary inefficiency as to figures was not really increased.

A mood is like a climate and can not be reasoned with. I continued to have for some two hours this elated sense of superiority. I was for this while in that condition in which some people permanently abide.

The further test of writing a few lines of verse was tried. I found there was much effort needed. I lay down again about 5:20, observing that the outer space field seemed to be smoky. Just at this time, my eyes being closed, I began to see tiny points of light, like stars or fire flies, which came and went in a moment. My palms were now tingling, my face a little flushed. About 5:40 the star points became many, and then I began to observe something like fragments of stained glass windows. The glass was not very brilliant, but the setting, which was irregular in form, seemed to be made of incessantly flowing sparkles of pale silver, now going here, now there, to and fro, like, as I thought, the inexplicable rush and stay and reflux of the circulation seen through a lens. These window patterns were like fragments coming into view and fading.

Hoping for still better things in the way of color, I went upstairs, lay down in a darkened room and waited. In a few minutes the silver stars were seen again, and later I found that these always preceded any other remarkable visions.

The display which for an enchanted two hours followed was such as I find it hopeless to describe in language which shall convey to others the beauty and splendor of what I saw. I shall limit myself to a statement of a certain number of the more definite visions thus projected on the screen of consciousness.

During these two hours I was generally wide awake. I was comfortable, save as to certain gastric conditions, which were not so severe as to attract attention. Time passed with little sense for me of its passage. I was critically attentive, watchful, interested and curious, making all the time mental notes for future use.

Especially at the close of my experience I must, I think, have been for a while in the peculiar interval between the waking state and that of sleep—the "prædormitum"—the time when we are apt to dream half-controlled stories; but as to this I am not very sure. As a rule, I was on guard with every power of observation and reflection in full activity.

My first vivid show of mescal color effects came quickly. I saw the stars, and then, of a sudden, here and there delicate floating films of color—usually delightful neutral purples and pinks. These came and went—now here, now there. Then an abrupt rush of countless points of white light swept across the field of view, as if the unseen millions of the Milky Way were to flow, a sparkling river before the eye. In a minute this was over and the field was dark. Then I began to see zigzag lines of very bright colors, like those seen in some megrims. I tried to fix the place and relation of these tints, but the changes were such as to baffle me. One was an arch of angled lines of red and green, but of what else I could not determine. It was in rapid, what I may call minute, motion.

The tints of intense green and red shifted and altered, and soon were seen no more. Here again was the wonderful loveliness of swelling clouds of more vivid colors gone before I could name them, and, sometimes rising from the lower field, and very swiftly altering in color tones from pale purples and rose to grays, with now and then a bar of level green or orange intense as lightning and as momentary.

When I opened my eyes all was gone at once. Closing them I began after a long interval to see for the first time definite objects associated with colors. The stars sparkled and passed away. A white spear of gray stone grew up to huge height, and became a tall, richly finished Gothic tower of very elaborate and definite design, with many rather worn statues standing in the doorways or on stone brackets. As I gazed every projecting angle, cornice, and even the face of the stones at their joinings were by degrees covered or hung with clusters of what seemed to be huge precious stones, but uncut, some being more like masses of transparent fruit. These were green, purple, red, and orange; never clear yellow and never blue. All seemed to possess an interior light, and to give the faintest idea of the perfectly satisfying intensity and purity of these gorgeous color-fruits is quite beyond my power. All the colors I have ever beheld are dull as compared to these.

As I looked, and it lasted long, the tower became of a fine mouse hue, and everywhere the vast pendant masses of emerald green, ruby reds, and orange began to drip a slow rain of colors. All this while nothing was at rest a moment. The balls of color moved tremulously. The tints became dull, and then, at once, past belief vivid; the architectural lines were all active with shifting tints. The figures moving shook the long hanging lines of living light, and then, in an instant, all was dark.

After an endless display of less beautiful marvels I saw that which deeply impressed me. An edge of a huge cliff seemed to project over a gulf of unseen depth. My viewless enchanter set on the brink a huge bird claw of stone. Above, from the stem or leg, hung a fragment of some stuff. This began to unroll and float out to a distance which seemed to me to represent Time as well as immensity of Space. Here were miles of rippled purples, half transparent, and of ineffable beauty. Now and then soft golden clouds floated from these folds, or a great shimmer went over the whole of the rolling purples, and things, like green birds, fell from it, fluttering down into the gulf below. Next I saw clusters of stones hanging in masses from the claw toes, as it seemed to me miles of them, down far below into the underworld of the black gulf.

This was the most distinct of my visions. Incautiously I opened my eyes, and it was gone. A little later I saw interlaced and numberless hoops in the air all spinning swiftly, and all loaded with threaded jewels or with masses of color in long ropes of clustered balls. I began to wonder why I saw no opals, and some minutes after each of these circles, which looked like a boy's hoop, became huge opals; if I should say fluid opals it would best describe what was, however, like nothing earthly.

I set myself later to seeing if I could conjure figures, for so far I had seen nothing human in form, nor any which seemed alive. I had no luck at this, but a long while after I saw what seemed a shop with apothecaries' bottles, but of such splendor of green, red and purple as are not outside the pharmacies of fairyland.

On the left wall was pinned by the tail a brown worm of perhaps a hundred feet long. It was slowly rotating, like a catherine wheel, nor did it seem loathly. As it turned, long green and red tentacles fell this way and that. On a bench near by two little dwarfs, made, it seemed, of leather, were blowing through long glass pipes of green tint, which seemed to me to be alive, so intensely, vitally green were they. But it were vain to find in words what will describe these colors. Either they seemed strangely solid, or to possess vitality. They still linger visibly in my memory, and left the feeling that I had seen among them colors unknown to my experience.

Their variety and strange juxtapositions were indeed fascinating for one to whom color is more than it is to most men; nor is it possible to describe the hundredth of what I saw. I was at last conscious of the fact that at moments I was almost asleep, and then wide awake. In one of these magic moments I saw my last vision and the strangest. I heard what appeared to be approaching rhythmic sounds, and then saw a beach, which I knew to be that of Newport. On this, with a great noise, which lasted but a moment, rolled out in darkness wave on wave. These as they came were liquid splendors huge and threatening, of wonderfully pure green, or red or deep purple, once only deep orange, and with no trace of foam. These water hills of color broke on the beach with myriads of lights of the same tint as the wave. This lasted some time, and while it did so I got back to more distinct consciousness, and wished the beautiful terror of these huge mounds of color would continue.

A knock at my door caused me to open my eyes, and I lost whatever of wonder might have come after.

After dinner I ceased to be able to see any further display of interest. Now and then a purple or pink fragment appeared, but that was all. For a day after I noted the fact that my visions could be easily recalled by a memorial effort, but with less and less sharpness.

These shows are expensive. For two days I had headache, and for one day a smart attack of gastric distress. This came after the first dose, and was most uncomfortable. The experience, however, was worth one such headache and indigestion, but was not worth a second.

Dr. Prentiss and others describe mescal as causing insomnia. My first experience with the tincture was made early in the morning. I became deeply flushed by noon, but had no visions. I felt drowsy and slept very well the following night. The

extract used, as stated, did make me sleepless up to 4 A.M., but neither restless nor uneasy.

Some interesting reflections are suggested by my experience with that vision-breeding drug, mescal. The effect on me was more or less like what is experienced in some ophthalmic megrims, and even my most brilliant visions can be matched by those I reported in 1887, and by some to be found in Dr. de Schweinitz's more recent paper.

The following extract from my own paper will sufficiently illustrate what I desire to point out. It concerns one of the several cases of megrim visions which I reported:

"The symptoms of onset are these: frontal and occipital sense of tension lessening toward night, good sleep follows: the next day he awakes with some pain between the eyes and slight photophobia. The second night, or the morning after it, he is aware of being flushed, but has no cerebral throbbing. In a few moments the lids feel as if pulled toward the inner canthus, and fortification zigzags appear, with next partial blurring of vision, which seems in twenty minutes to efface the lines and include more or less of the field. The lines seem to be projected one inch from the eye, and flash, and come and go with shimmering prismatic colors. The dimming of vision lasts some twenty minutes, and leaves him with slight vertigo and a feeling of fulness of the head, but pain always begins over the eye which has distinct vision, and of this he is sure. It increases as the eyesight clears, and is about one inch above the eye. Exertion, stooping, anxiety increase it. The pain lasts from one to three hours, and ceases without nausea. When it occurs over the left eye he has sometimes slight aphasia for five minutes, and in youth this was more severe and more lasting.

"As the zigzags fade he has exalted sense of hearing; loud voices hurt him for half an hour, and this is the period of vertigo. At one time he had at this period of the attack tingling in the fingers of the side opposite to that of the pain. After a number of these headaches he is subject to the curious and exceptional illusions which have caused me to report his case. At times these replace the zigzag lines, but later in a series of headaches they come on independent of the hemicrania, and occur at night, while awake or in full daylight.

"1. A common delusion with him is to see about twenty feet distant a trellis of silver covered with vines and flowers of brilliant tints. This is seen best when the eyes are open, and comes and goes.

"2. He sees a series of complex geometrical figures at the center of the field. These are brilliant pink or red.

"3. Quite commonly he sees multiple red circles intertwined and in rapid rotation, and once a red eye which seemed to approach him from a distance. Sometimes there is a milky cascade before both eyes.

"4. He saw once a crescent of silver on the wall, and suspended from it numerous heads in profile. Some were strange to him, and some were vivid revivals of faces which he had long forgotten.

"5. Six years ago he saw, during an attack, a huge red spider, which melted into a series of red rectangles revolving in swift motion.

"6. He has several times, and first on awakening, seen the door opened and a procession of white-robed veiled figures enter. They did not fade until he arose and lit the gas. These were seen with his eyes open or shut, and he could not double them by causing himself to squint by pressure on one eye."

It will have been seen that mescal supplied me with one-sided (left) frontal headache—later with occipital pain on both sides, with colored zigzags or fortification lines—the rain of silver and disorder of the stomach. I ask myself now if the megrims with visions are apt to be found in association with occipital pain in the region of the convolutions, which we believe store up our ocularly acquired memories. It is worth an inquiry.

The mode of action of mescal is somewhat curious, and may vary with the dose and with the man. At first, even at the height of drug action, the visions require one to wait with closed eyes for a minute or more. To open the eyes is to dismiss the vision, no matter how dark be the room. Suggestion availed me but little, and no act of will was competent to hold my dream unaltered.

I found in these seeming laws some resemblance to those which—in my case, at least—appear to govern a quite ordinary and normal phenomenon. From childhood I, like some others, can at night, before sleep arrives, summon visions. These are not always just what I desire. Once present I can not alter them; they shift, change and disappear under influences not within my capacity to control or to analyze. To open my eyes, even in the most intense darkness, dismisses these visions. Is it true of opium visions? The same law certainly applies to some hysterical phantasms; but the explanation does not as yet seem attainable. My normal power to summon visions was entirely lost under mescal action. I tried to see faces, gardens, etc., but none came at command so long as I was under the influence of the drug.

For the psychologist this agent should have value. To be able with a whole mind to experiment mentally upon such phenomena as I have described is an unusual privilege. Here is unlocked a storehouse of glorified memorial treasures of one kind. There may be a drug which shall so release a mob of verbal memories, or of musical records, or in fact, of tastes and odors. I naturally speak of things seen under mescal influence as glorified memories—certainly nothing seen in these visions was altogether out of my known experiences, but everything was excessive, forms were gigantic, colors marvelously intermingled. In fact, nothing was simply the vision of a thing remembered and recognized, except the familiar Newport Beach.

I see no obvious therapeutic uses for mescal in massive doses. It is yet to be tested by continuous employment in moderate amounts, and may be of value.

The Glandular Elements in Bubonic Plague.—Dr. Simon Flexner, in the *Johns Hopkins Hospital Bulletin*, explains the symptomatology of the plague as obtained from a study of the lately published observations of Kitasato and Aoyoma. A paper by the latter, who himself contracted the disease at Hong Kong in 1895, has been published in the *Mittheilungen aus der Med. Facultät der Kaiserlichen Japanischen Universität*. The symptoms of this disease are incorrectly described when called multiform or protean, as the habit of some writers is, but they are simple. Prodromata are seldom present or complained of by the more obtuse part of the Chinese; the more intelligent people take note of some slight swelling and tenderness in the glands. After a day or two the glandular symptoms become more marked, and those glands first involved may reach the size of an egg. The pain increases with the growth in size, although in some cases it may be absent excepting upon pressure. The glandular affection is characteristic, inasmuch as it begins in one group and then involves in succession others, as for example, first the inguinal, then the axillary, then those of the neck and finally the submaxillary glands. The glands of the neck, of the elbow and of the knee are seldom primarily affected. Only very rarely do several sets of glands become enlarged at once. Very soon after the swelling of the glands the periglandular tissues become involved and then later the skin. In the milder cases, suppuration may not occur and the swelling gradually diminish and finally disappear. On the other hand, suppuration may occur even in glands but little enlarged. In the rapidly fatal cases, death may occur before any considerable glandular swelling can be made out, in the severest cases taking place on the second day. As a rule death occurs from the second to eighth day, and on an average on the fourth day. As suppuration of the glands rarely occur before the tenth day it was not observed in these more rapid cases. When death takes place late in the course of the disease it may be due to a second pyemic infection. The suppuration of the glands may continue for months, so that the convalescence of the patient is rendered very slow and tedious. When suppuration does not occur the glands gradually become smaller, although the enlargement may not entirely disappear for two or three months. It is noteworthy that at autopsy the lymphatic apparatus of the stomach and intestines and the mesenteric lymph glands were never found greatly inflamed, and the last contained very small numbers of the bacilli only, or in certain cases none at all. Hence it is stated that all physicians who observed this outbreak of the pest were forced to the idea that the bacilli entered chiefly through external wounds. In the great majority of cases the deep inguinal and the axillary glands, and in a small number of cases the superficial inguinal glands, of one side were first affected and afterward other glands became involved. This fact is explicable only upon the assumption that the organism entered through small defects of the skin which were present either on the feet or the hands; and as the working class of China usually go barefoot, such small defects can easily be imagined to exist. Further, as is known, the lymphatic vessels of the feet run to the deeper and lower inguinal glands, thus exposing these first in the great majority of cases. The superficial inguinal glands receive the lymphatics of the penis and the skin over the lower portion of the abdomen, and these are but seldom primarily affected. Of the nine Japanese whom Aoyoma observed, two women showed affection of the axillary glands, one of the submaxillary glands, whereas in the other no glandular affection could be detected,

notwithstanding the fact that the bacilli were found in the blood. Of the Japanese men, four showed swelling of the axillary glands and only one of the inguinal glands. This is interesting when it is considered that the Japanese do not go barefoot. It may also be mentioned that among the Chinese the women show affection of the axillary glands rather than of the inguinal glands. The wounds through which the infectious agent enters show, as a rule, no reaction. Notable exceptions to this statement are his own case, in which a lymphangitis was present, and that of his assistant, Nakahara, who succumbed to the disease and in whom lymphangitis was also observed, in both cases beginning in the hand and extending toward the axilla. As regards the manner of diffusion of the bacilli, nothing new has been offered in this report. The period of incubation of the disease is given at from two to seven days. The increase in size of the lymphatic glands depends upon several factors, namely, hyperemia, exudation, hemorrhage, hyperplasia of the gland cells, and great development of bacteria. The bacilli which are present are found in the earlier stages in the lymph spaces about the follicles, and later they are found within the follicles, the lymph sinuses and the medullary cords. The cells of the affected gland undergo various degenerative changes and may become necrotic. They lose their nuclei in the latter case, and a variable amount of nuclear detritus is present among the degenerated and necrotic cells. The hemorrhages are not limited to the gland itself, but may be found, as well as greater or less edema, in the periglandular tissues. The usual fate of the enlarged glands is to suppurate, although in certain cases the swelling may disappear without suppuration and the glands return to normal; while in still others a fibroid induration may result. The suppuration is either of the nature of simple abscess formation, or preceding this there may be a necrosis of the gland substance; in certain cases the suppuration does not remain limited to the glands, but extends into the periglandular tissue. Sections of the lymph glands showed a variety of bacteria. It is stated that in the primary localization various bacteria may be associated. Among these can be distinguished the pest bacilli and cocci, and among the latter both streptococcus and staphylococcus forms may be discovered. Aoyoma considers the association of these organisms as very important in determining the suppuration or non-suppuration of the affected glands. The spleen usually shows the presence of large numbers of bacilli, and among these more rarely micrococci. The pest bacilli were also, though not constantly, found in the interstitial substance of the kidneys and in the glomerular capillaries. They were also present in the inter- and intra-acinous tissues of the liver. The mesenteric glands sometimes contained the bacilli in small numbers; it is not stated whether or not they were found in the structures of the central nervous system.

A Case of Deciduoma Malignum.—In the *British Medical Journal*, December 26, appears a paper by Julia Cock, M.D., Senior Physician to the New Hospital for Women, on the above subject.

Considerable attention is being given at the present time to the study of the clinical characters and pathology of that form of new growth known as deciduoma malignum, and it is therefore desirable that all recognized cases should be put on record. The literature of the subject is chiefly to be found in Germany and America, though scattered notices have appeared from time to time in English medical periodicals. The recent important discussion at the Obstetrical Society of London, will bring the disease more prominently to the notice of English practitioners, and as few cases have hitherto been reported in this country, the following particulars may be of interest:

Mrs. S., aged 30, was admitted to the hospital June 19. The patient had been delivered of her fourth child three weeks previously. The labor was normal, and the placenta was examined, and considered to be complete. The loss at the time of labor was slight, and she was up on the fourteenth day. She then had slight hemorrhage, and was ordered back to bed. On June 17 she got up again, profuse hemorrhage occurred, and she was admitted to the hospital.

On admission she was blanched and exhausted; the temperature was 102 degrees, and the pulse 120. She was lethargic, and it was difficult to rouse her or to take food or answer questions. The uterus on vaginal examination was felt to be high, the os closed. Hemorrhage was slight. Nothing abnormal was detected in chest or abdomen. On June 20, the patient was anesthetized and the cervix dilated. A mass was felt adherent to the posterior wall of the uterus, the feel and appearance being that of placental tissue. It was removed by the finger and curette, and the uterus douched and lightly packed with iodoform gauze.

On June 24 she was delirious at night and tried to get out of bed, but she had no delusions. She slept at 3 A.M., after a draught of potassium bromid. On July 7 her condition was good. Slight bleeding occurred, which was thought to be probably a normal period. On July 13, she had headache, the temperature was 101 degrees, and she vomited three times. At 2:30 A.M., July 14, the house-surgeon was sent for, and found the patient had passed two large clots, and the bed was drenched by the discharge of a great quantity of blood-stained serum. She was blanched and faint, the pulse was 130. On July 15 another large clot was passed. The uterus was felt to be high. The os was patulous, and admitted the tip of the finger; a roughish mass was felt presenting through it. There was no fever. The temperature was 98 degrees and the pulse 120. Examined under an anesthetic on July 16, the os was found to be patulous, and no dilators were needed for the exploration of the uterine cavity, which measured three inches, and was occupied by a mass of pale organized material growing from the posterior wall. This was removed, and over its site the uterine wall was felt to be extremely thin. There was little hemorrhage during the curetting. The uterus was douched, and lightly packed as before.

The case was fatal on July 26. The microscope revealed heterologous deposits in primary and metastatic sites, mostly with syncytal masses in which were embedded nuclei of various shapes and sizes. Vacuolation of the syncytium was well marked. Epithelioid cells were seen either singly or in masses adhering together.

From the varying views held at present it is clear that the last word is not yet said as to the classification of this new growth, or its relation to the more usual forms of malignant disease. All observers are agreed as to its malignancy, and as in all probability hysterectomy before metastasis has occurred is the only procedure which holds out the smallest hope of saving the life of the patient, early diagnosis is of the utmost importance. The growth has a definite structure, and can be recognized from its microscopic characters. In the case of Mrs. S. some of the most characteristic sections are from scrapings removed from the uterus during life, and it is fortunate that these easily obtained specimens give, in some cases at least, a result from which a diagnosis is possible.

The following points were characteristic in the case of MRS. S.:

1. That the disease appeared in connection with pregnancy.
2. That the patient was a young woman.
3. That dangerous hemorrhage was present; that it was intermittent, and occurred without warning after days of quiescence.
4. That nervous symptoms (lethargy and delirium) were present. In some recorded cases delirium has been a marked feature.
5. That metastatic new growths were found in the lungs and ovary.

Cutaneous Lesions Due to the Roentgen Ray.—Professor Elihu Thomas of the Lynn Electric Laboratory, experimented upon himself with the X ray, with a view to determine what foundation existed for the lesions, sometimes styled dermatitis Roentgeni, *et al.*, that have been reported as caused by the ray. He says: "I used for this the little finger of the left hand, exposing it close up to the tube, about one and one-quarter inches from the platinum source of the rays, for one-half an hour. For about nine days very little effect was noticed, then the finger became hypersensitive to the touch, dark red, somewhat swollen, stiff, and soon after the finger began to blister. The blistering started at the maximum point of action of the rays,

spread in all directions, covering the area exposed, so that now the epidermis is nearly detached from the skin underneath, and between the two there is a formation of purulent matter which escapes through a crack in the blister. It will be three weeks today since the exposure was made, and the healing process seems to be as slow as the original coming on of the trouble, while the pain and sensitiveness have largely left the finger within the last day or two, and the blister now covers the whole exposed back and sides of the finger. I think the finger will soon heal, but I assure you that I will make shorter exposures hereafter. Figuring out the equivalent exposure at six inches distance, it would equal about ten to twelve hours. The lesion is very peculiar, and I never saw anything like it. It continued to develop and spread over the extent of the exposed surface for three weeks, and I am not sure yet that the affection has reached its limit on the exposed surface. I hope the healing process is well begun, but thus far I am not decided on that point. The exposure, it must be borne in mind, was a long one. At the distance I used, it was equivalent to twelve hours at six inches. I was fully as great a skeptic as yourself before I made the experiment, but I am now considerably more than convinced that if the exposure is long enough the results will follow. I may say, in conclusion, that my experience has been that with ordinary wounds, bruises, cuts and the like, the healing process is quite rapid, showing that there is no lack of vitality of my tissues in that respect, and it would appear from my experiment that little effect of a deleterious nature is produced at all unless the exposure passes a certain limit, assuming a given strength of X ray emanation. I would say that I have recently learned from our Harrison works, that a young man who is working on testing Crookes tubes made there, had to stop work owing to the fact that his arms began to be affected, and I understand that this effect was produced through the clothing. I have lately made some inquiries, and find that two cases have been reported in Mr. Edison's laboratory in which the effects were far more severe, since they took place over the hands and arms of the victims, and made it necessary for them to stop work altogether in connection with X rays. The story goes that one of them was told by his physician that if he continued work it would be necessary to amputate his hands. I can readily understand this, as the effect produced by long exposure transcends any effect that I ever saw or knew of as being produced by the most severe sunburn, even when attended by ulceration."—*Boston Medical and Surgical Journal*, December 10.

Frequency of Spontaneous Recovery from Appendicitis.—Rotter states in his important report of the 213 cases treated in the medical and surgical departments of the St. Hedwig Hospital at Berlin, 1893 to 1895, that the mortality in appendicitis is not so large as usually assumed, amounting in his experience to only 8.9 per cent. of the total number of cases, and to only 2.5 per cent. in the circumscribed cases. (Three of these might and probably would have been saved with prompt operation.) He reviews also the results secured by others, especially Sonnenberg, which imparts extra interest to his communication. He is more conservative than Sonnenberg, who advises removing the appendix even in mild cases, that begin "stormily," particularly if there is any chronic tendency, stating that mere incision of the abscess is never sufficient. Rotter's practice is immediate operation in diffuse peritonitis, conservative treatment in the circumscribed cases. He does not accept Sonnenberg's seven forms, but divides all cases into the two: general and localized peritonitis. He found that of the localized cases, 90 per cent recovered spontaneously, and 84 per cent. of the total number of cases received at the hospital during the first six days of the attack. He ascribes great importance to the fever, which he classifies into five groups: 1. Cases beginning with high fever, up to 40 degrees C.; decrease third or fourth day. Rapid convalescence. 2. Begin the same, with fever up to 40 degrees. Fever lasts longer, but not over 39 degrees by fifth day. Fourteen cases of this kind, all recovered. Three required operating for circumscribed abscesses. In the absence of fever, he operates such cases the ninth day. 3. Same, with temperature over 39 degrees longer than the fifth day. Grave virulent infection. Prognosis unfavorable. In eleven cases there were two deaths. The fever disappeared spontaneously in two cases the eighth to ninth day. Four were operated. Three recovered after protracted stay in bed (perforation into the intestine). This group requires prompt surgical intervention, not later than the sixth day, and earlier than this with symptoms of progressive peritonitis. 4. After an earlier fall in the temperature, it rises again, which always indicates larger accumulations of pus. Four were operated of the six cases in this category. One died of general peritonitis, and another left after the third remission, apparently cured. These cases should be operated during the first remission. 5. General peritonitis. The temperature is low, often subnormal in severe infection, higher in progressive cases. The pulse indicates the severity of the attack. Recovery is only to be expected with surgical intervention. He believes that pus is always present in acute attacks, whether found or not. It may be discharged through the lumen or the perforation and absorbed by the peritoneum.—*Cbl. f. Chir.* October 24.

A Successful Conflict with Trismus Neonatorum a Century Ago.—The *British Medical Journal* refers to an old book, Clarke on the "Diseases of Dominica," giving a few paragraphs upon his management of trismus, with a short comment on the causes of Dr. Clarke's success.

"As the trismus infantum or jaw-fall never happens to infants after the ninth day of their age, it may be considered as a third species of this disease. For many years after my arrival in the West Indies nearly one-fourth of the negro children on the plantations died of the trismus or jaw-fall on the eighth or ninth day after they were born. It therefore became a matter of serious consideration with the planters to find out a method to prevent this mortality among their negro children. That the disease could not be cured was soon discovered, as not a single instance of such a result ever occurred. . . . I observed that the children born in the large negro huts generally recovered, and that white children, or those of free people, who had their kitchens apart from their dwelling-houses escaped the jaw-fall. I therefore suspected the smoke from the burning wood was the cause of it. In consequence of this I gave orders that no fires should be allowed in the negro houses where the lying-in women were, which answered the purpose of preventing the disease, when the order was complied with; but negroes are so fond of fire that they often lighted it up by stealth, and so frustrated my plan. I then recommended a lying-in hospital to be built on every estate near the negro-houses, with a planked floor, so that no fire could be kept in it, since which no children who were born in these hospitals, and remained with their mothers in them for nine days, have ever been attacked with this disease. . . . The fires in the West Indies are made of wood, and the smoke from them is so stimulating to the eyes, that few white people can bear it for a moment. From the foregoing observations I am of opinion that the smoke of the wood used as fuel in small huts, where it has not a proper vent, is the cause of this disease among infants in some parts of Switzerland and France, and in the Highlands of Scotland, as well as it is in the West Indies." Our knowledge of the etiology of tetanus would lead us to attribute the success of this experiment in preventive medicine to the freedom from earth infection and the greater cleanliness the wooden floors entailed, and to discount the partial success claimed as the result of the prohibition of fires in the other huts. It is noteworthy that time, race, and climate do not modify the disease. In St. Kilda in 1896, in Dominica about 1796, and in this colony it is fatal alike in eight or nine days after birth, though occurring in different races and so widely different climatic conditions. It is difficult to state accurately its prevalence in British Guiana, but in Georgetown, where nearly four-fifths of the deaths are medically certified, there were in 1895 43 deaths from this cause out of 1,745 births, 2.4 per cent. Wooden floors, frequently very dirty, are the rule. In hospital practice, on the other hand, with ordinary cleanliness and attention to the umbilical cord, the disease is not met with, and out of over 500 children born alive in the hospital in the last five years, no cases occurred.

The Gensichen Diphtheria Antitoxin Case.—The meeting of the Berlin Medical Association, December 16, was enlivened by a discussion of this peculiar case. Dr. Gensichen of Vietz was taken with light diphtheria on the left side in November, 1895, and injected himself with the curative dose of serum No. 2 in his left flank. He stated that the local process healed without irritation, showing that there had been no infection from a septic syringe, or anything of the kind. A week later urticaria appeared and lasted about a week, and in three weeks small pimples made their appearance, developing slowly into large abscesses, which soon discharged a bloody pus, recalling the glanders of horses. These abscesses were limited to the region in which the injection had been made, for six months, when they spread to the other side of the body for the next half year, and he still has some small ones. Virchow made a bacteriologic investigation with the results that only staphylococci were discovered, and no glanders microbes as might have been expected. The form of the abscesses he stated was peculiar; they passed through the cutis into the subcutaneous tissues, with which they communicated by a round, sharply cut hole. Anatomists met with similar experiences, he added, from postmortem infection, with eruptions like this and copious discharges. Heubner considered that the case was merely an attack of furunculosis, which had happened to be preceded by an injection of antitoxin. Baginsky also exonerated the serum, describing the case of a boy he had recently treated for the same affection, following a traumatism, but in his case there was no question of a preceding injection. Virchow, however, emphasized the fact that the first abscesses had occurred in the immediate vicinity of the injection, and not till afterward did they spread over the body. He considers, therefore, that the injection was directly responsible for them, but added that this did not mean the antitoxin. The injection and the serum injected are two different things. Dr. Gensichen sent a description of his case to the *Berl. klin. Woch.*, which published it with some editorial comment. A garbled account was reprinted in the daily papers, which induced Dr. Gensichen to write a correct account for his local paper. Ewald deprecated this publicity and urged that such things should be kept within medical circles and not made into sensations for the daily press. He considered the case a staphylococcus infection, as frequently happens when the injection is not made with absolute aseptic precautions.—*Therap. Woch.*, December 27.

The Exposure of Nostrums.—The editor of the *Health News* has published two small volumes on "Exposures of Quackery," at about 50 cents for the set. The following are the cordial remarks upon them in the *Lancet* for December 19:

The public, even more than the profession, owe a debt of gratitude to the editor of the *Health News* for his admirable and trenchant articles on quack remedies, which have been reissued in a convenient and handy form. Although many of the exposures were made some months ago, the vendors of several of these articles continue to flourish their wares in the eyes of the gullible. Some, it is true, have succumbed before the lurid light thrown on their dishonest practices, but not a few, we fear, have obtained too firm a foothold to be so readily dislodged. However, we trust these booklets will have a wide circulation, for they are written in a vigorous and entertaining style and contain revelations based on accurate analyses which should do something to stem the current of quackery. We have often protested against the support and one may even say the protection given to the trade in quack remedies by the Patent Medicines Act, and we agree with the writer of these brochures that the Government label serves to delude the ignorant into the belief that the contents of the phial so labeled have been tested and approved by the State. His suggestions that all patent medicines should be prepared by qualified druggists and that the composition of the medicine should be given on the label, might go some way to check the evil, and of course it would defeat the object of the inventor, whose mainstay is that his remedy is a "secret" one, although he may assign its origin to a source far remote from the actual one. The perusal of these revelations should excite ridicule if it were not so pitiful; as it is, the feelings uppermost in the reader's mind must be mixed—amazement at the amount of credulity on the one hand and scorn and contempt on the other for those who, aware of this credulity, spare no pains to foster it by practices as unworthy as they are dishonest.

PRACTICAL NOTES.

Diagnosis of the Location of Cerebral Abscesses of Otitic Origin.—Rosa of Rome states that lesions of the occipital lobe produce temporary or permanent blindness or hemianopsia, while lesions of the cuneus produce hemianopsia. Aphasia and hemianopsia are therefore important indications in locating cerebral abscesses.—*Gaz. d. Osp. e d. Clin.*, December 13.

New Lacto-serum for Culture Media.—An artificial serum possessing all the properties of milk, for a culture medium with the advantage that it will keep indefinitely, is made by this formula: Lactose, 55 grams; albumin of eggs pulverized, 28 grams; sodium chlorid, 60 grams; distilled water, 1,000 grams; enough soda is added to give it a slightly alkalin reaction. It is filtered into test tubes and sterilized in the autoclave at 110 degrees C. for ten minutes on a layer of cotton.—*Presse Méd.*, January 13.

Cure of a Case of Intra-nasal Lupus with Guaiacol.—H. Bergeat describes in the *Münch. med. Woch.*, No. 52, a case of old lupus vulgaris of the entire external nose, cheeks and nasal cavities in a woman of 40, which he cured completely with two days' application of Klever's 10 per cent. guaiacol vasogen on cotton tampons of appropriate shape and size. The applications smarted for one to three hours, but not enough to require cocain. The tampons in the nose were removed before retiring. In one to one and one-half months all traces of the lupus had disappeared. A few months later it showed itself again in the same place, but promptly succumbed to a moderate repetition of the treatment. Before and during the guaiacol treatment airol was insufflated into the nasal cavities and creosote administered internally. The nasal secretions were much relieved by tannin snuffed up into the nostrils.—*Therap. Woch.*, January 10.

Anatomy of Congenital Equino-varus.—Nichols (*Boston Medical and Surgical Journal*, Feb. 18, 1897, p. 153) thus summarizes the result of a study made in the Sears Pathological Laboratory of the Harvard Medical School: The deformity in cases of congenital club-foot is due to alterations in the shape of all the bones of the foot, in conjunction with contraction of certain tendons and ligaments. The chief deformity is at the "mid-tarsal" joint, and is due to an inward deviation of the articular facets of the os calcis and astragalus. A failure to correct this obliquity will result in a failure to correct the deformity. In resistant cases the obliquity can be corrected by osteotomy of the neck of the os calcis and the astragalus, followed by forcible reposition of the foot.

Sterilization of Elastic Catheters with Formaldehyde Vapors.—Oppler announces that catheters are effectively sterilized with formalin in six hours allowing 2 per cent. of the formalin to the space in the disinfecting apparatus. A patient requiring the catheter four times in the twenty-four hours can thus be supplied with only two catheters. He uses a simple tin box with a tight cover, a trifle longer than the instruments and about 20 cm. deep. The formalin in a solution, or in formaliths (six stones represent 10 c.cm.) or in the form of prioxymethylen (more expensive and requiring a longer time to sterilize) is placed in the bottom of the box and the catheters in a wire tray above it. Calcium chlorid used simultaneously prevents the softening of the instruments. The catheters must be carefully rinsed in sterilized water and dried before using. The sterilized catheter can be carried, when traveling, in a paper box cotaining a corresponding formalith.—*Cbl. f. Chir.*, January 9.

The Heredity of Tuberculosis.—As the result of a careful study of the subject Szegö (*Archiv für Kinderheilkunde*, B. xxi, H. v, vi, p. 328) reaches the conclusion that the inheritance of tuberculosis is either parasitic or dispositional (perhaps toxic). This heredity does not exclude the possibility of contagion. On the contrary, the predisposed subject furnishes preëminently a susceptible soil. It is difficult to determine which is the predominant factor in the transmission. This may result through infection of sperm or ovule or through the placenta. Involvement of the lungs, of the intestines, of the glands adjacent to the mouth and the nares indicates rather origin by contagion, while tuberculosis of brain, joints, bones and abdominal viscera bespeaks rather a congenital causative condition. The congenital germ of tuberculosis may remain latent in the organism for a variable period of time, and exert its influence only when the general condition of the organism is depreciated.

Heldenberg's Theory of the Etiology and Treatment of Lumbago.—Contrary to the accepted theory in regard to the origin of acute typical lumbago, Heldenberg ascribes it not to the muscles but to a sprain of the sacro-vertebral articulation, and treats it with a systematic course of gymnastics. The patient reclines on a hard couch, with the region slightly and evenly raised. The flexed limbs are then slowly lifted and the patient is soon able to raise them himself. The next step is to slowly flex the lower limb on the pelvis, then raise the limb with the thigh still flexed on the pelvis, and then stretch the limb out and down to its fullest extension. The movements are then repeated with the two limbs simultaneously. The pain is less if the patient supports his own thighs with his hands. After these gymnastics the patient can rise, stoop and attend to his usual occupations, and a repetition is not needed except in the most obstinate cases. In very severe cases Heldenberg applies a sinapism to the rear surface of the articulation, not to the muscles, just before the gymnastics. A daily injection of water or glycerin may be needed to prevent constipation.—*Semaine Méd.*, January 20.

Triturate of Mercuric Iodid as an Intestinal Antiseptic for Children and as a Membrane-solvent.—Dr. Chittick of Detroit, in the *American Therapist* for December, offers the opinion that this remedy merits a more careful attention by our profession. He prescribes a one-hundredth per cent. triturate of the red iodid of mercury with sugar of milk, commonly called "pink powder." This preparation is especially satisfactory in the treatment of the summer diarrhea of infants, especially when accompanied with depression. It is acceptable to the taste on account of its sweetness. It is thoroughly antiseptic. The required dose is necessarily very small. It can be given as a powder dry upon the tongue, or mixed with water in a glass, so that a teaspoonful will represent the required dose. It also possesses the advantage of being a solvent of pseudo-membrane, and even of croupous membranes. He has used it frequently, and with much success, in grave cases of diphtheria, especially in young children who did not tolerate any other form of oral medication. The dose is usually from three to five grains of the trituration, every one to four hours, according to the severity of the case or age of the patient.

Cod-liver Oil Condemned in Tuberculosis.—Dr. Arrowsmith of Brooklyn is the author of a bright little pamphlet on the modern aspects of tuberculosis, in the course of which he pays his respects to the hypophosphites and the cod-liver oil. As to the latter, he says that cod-liver oil has been administered as a matter of routine in larger quantitities than any other remedy. His personal experience has led him to the opinion that it is very much worse than useless. The most that he has ever felt justified in hoping from it has been that it would not do harm. He has never seen it act beneficially. Patients who improve during its administration do very much better, as a rule, after discontinuing its use. "It acts as an alterative, by changing decidedly the oxidation process of the system. But unfortunately, its alterative effects are in the wrong direction, decreasing the perfection of the proteid oxidation and often depriving unfortunate patients of the single chance of recovery which they might otherwise have retained. The free ingestion of it rapidly decreases the urea in the urine, and increases the incomplete or imperfect products of nitrogenous waste. The more perfectly it is emulsified, the more detrimental it becomes, because, thus, it is more palatable, and is less likely to produce digestive disturbance, and to be, therefore, refused entrance to the system. The emulsion also favors the absorption of an immoderate quantity, thus exhausting the oxygen supply and rendering the suboxidation of the proteid molecule, with all its ill effects, doubly certain. It disturbs digestion and prevents the utilization of other and more valuable forms of food stuffs."

Congenital Sarcomatosis of the Skin.—In detailing a case of congenital sarcomatosis of the skin Neuhaus (*Archiv für Kinderheilkunde*, B. xxi, H. v, vi, p. 366) points out that of all the new formations of childhood sarcoma is the most common, and of congenital sarcomata the most common are found in the kidneys. Metastasis of internal sarcomata to the skin is not rare, but primary sarcoma of the skin is extremely rare. The case in question occurred in a child two months old, of healthy parents free from syphilis and tuberculosis. The infant appeared normal at birth, but when bathed on the fifth day by the mother the left leg was noticed to be more curved and thicker than the right. In the following days the extremity increased in size, especially upon its external aspect. At the age of five weeks an incision was made into the leg and a cohesive, gelatinous mass as large as a hen's egg was removed. Free bleeding ensued, but the bones were apparently healthy and not connected with the growth. At about this time the mother noticed on the external aspect of the right ankle a bluish spot, which on palpation proved to be a nodule as large as a pea. Gradually similar nodules appeared upon the trunk and upon other portions of the body, increasing progressively in size and some undergoing ulceration upon the surface. The child was large and apparently well nourished. The nodules varied in size from a lentil to a small apple, were of elastic consistence and presented pseudo-fluctuation. They were sharply circumscribed and movable upon the subjacent tissues. They were variously situated in the skin and the subcutaneous connective tissue. The lymphatic glands were slightly enlarged, especially those of the groins and of the neck. There was no evidence of involvement of any internal viscus. Examination of a removed nodule disclosed the histologic structure of a round-cell sarcoma. No abnormality was found in the constitution of the blood. The condition of the child gradually deteriorated, until death took place in the course of ten days. Postmortem examination disclosed widespread metastasis, the evidence pointing to the cutaneous covering of the left leg as the seat of the original growth, which must further, it was concluded, have been of congenital origin.

Absolute Alcohol as a Disinfectant for Surgical Instruments.—That absolute alcohol is not an absolute germicide is admitted, but that it has an area of usefulness in the care of instruments has been claimed. Dr. R. L. Randolph, in the *Johns Hopkins Hospital Bulletin*, states that his experiments as to the effect of this substance upon the keen-edged instruments of the ophthalmic surgeon have led him to prefer it to the use of heat. He is satisfied that dry heat, as well as moist heat, dulls the edges of instruments. He says: "For the past eight years I have employed absolute alcohol as a disinfectant for all cutting instruments used in operations upon the eye, and recently I instituted a series of bacteriologic experiments to test the value of this agent as a practical disinfectant. The cataract operation demands a keener knife, probably, than any operation in

surgery, and the peculiar objections to heat for sterilizing cutting instruments led me to adopt the use of absolute alcohol as the best substitute for heat." The alcohol employed in these experiments was Squibb's absolute alcohol, which is supposed to have a strength varying from 98⅛ to 99.9 per cent. This is the grade of alcohol which he uses in operations. He presents the following conclusions: 1. That in a given number of eye instruments, by far the majority are infected by exposure to the air. 2. That absolute alcohol will seem a valuable disinfectant for instruments infected under the conditions which ordinarily surround us in everyday life. This conclusion seems warranted by the results obtained in the first and second series of experiments. Attention may be called to the fact, too, that in the second series the nails were all without a doubt infected, and it might be said that they had been exposed to conditions which, to say the least, were extraordinarily favorable for infection, so that this series, I think, is strongly suggestive that alcohol possesses disinfectant properties of no little value. 3. That the septic character of instruments infected with a pure culture of staphylococcus albus is not altered by exposure for twenty minutes to the action of absolute alcohol.

Diphtherial Antitoxin at Montreal.—The editor of *Therapeutic Progress* makes the following correction in his February issue: "In our December issue we reprinted a table, 'Mortality of Diphtheria as treated with or without Antitoxin.' The figures relative to the comparative mortality at the Montreal General Hospital (*without* antitoxin, 103 cases, 10 deaths; *with* antitoxin 10.3 per cent.) are obviously incorrect. Dr. A. T. Bazin, superintendent of the hospital, advises us that the mortality in the years previous to the advent of antitoxin ranged from 40 per cent. to 66 per cent., but that since antitoxin has been administered the mortality has fallen to less than 10 per cent., 103 cases with 10 deaths. In justice to the institution and to Dr. Bazin we take pleasure in making this correction."

Whale Oil in Acne Vulgaris.—Boeck, referring to the observations of Guldberg on whale oil, directs attention to the peculiar power of penetration which it possesses. But another remarkable property does not seem to have been previously noticed, viz., that to a certain extent it restrains the vitality and growth of bacteria in the skin; this endowment the author has specially endeavored to make of use in the treatment of acne vulgaris, and not, as is appears to him, ineffectually. He uses the following formula:

℞	Powdered camphor	30 to 50 parts
	Salicylic acid	30 to 50 "
	Sulphur	10 "
	Zinc oxid	2 "
	Medicated soap	1 "
	Whale oil	12 "

The ointment is applied every night, and in the morning washed off with soap and water. The camphor is added to cover the unpleasant odor of the whale oil.—*Edinburgh Medical Journal.*

Rupture of Heart.—Dr. Cecil Robertson, in the London *Lancet*, reports one of those cases of rupture of the heart, from external violence without penetration of the chest, that are of very infrequent occurrence. "Erichsen, in the last edition of his 'Science and Art of Surgery,' says that Gamgee was only able to collect twenty-two published cases. In the majority of these cases the blow was directly over the cardiac region. For two reasons I think the following case is not unworthy of being recorded: 1, the small number of recorded cases; 2, that the heart in this case was ruptured by indirect violence. An apparently healthy man aged 49 years opened the door of a railway carriage just as the train commenced to move and fell somewhat heavily on his left shoulder. On being asked by the officials if he had hurt himself he replied 'no,' and proceeded some two or three hundred yards from the station to his work, where he died within three-quarters of an hour of his falling from the train. On postmortem examination I found the pericardium intact but distended with a mass of blood clot and fluid blood. In front of the left auricle was a laceration one and a quarter inches long through which a piece of clot protruded. The wall at the seat of the laceration was considerably thinned; both ventricles were very much hypertrophied; the whole organ weighed 22 ounces. Beyond a slight abrasion over the right knee there was no external evidence of an injury and there is little doubt that the cause of the rupture was the violent impact of the left shoulder on the platform."

Euchinin, A New Preparation of Quinin.—Dr. O. Van Noorden, in *Centralblatt für innere Medicin*, November 28, says that a preparation of quinin, called euchinin, possesses the curative properties of quinin without having its bitter taste, or producing a disturbed appetite, nausea, noises in the ears, heaviness, etc. It is formed by the action of ethyl-chlorocarbonate on quinin. Euchinin crystallizes in needles, and is readily soluble in alcohol, ether or chloroform, but is with difficulty dissolved by water. The chlorid of euchinin is easily soluble in water, the sulphate is less soluble, and the tannate least so. The base euchinin is tasteless unless it remains on the tongue for a long time, when it is slightly bitter. If given in sherry, milk or cocoa, it produces no unpleasant taste. Healthy people can stand 1 gram, and usually 2 grams, without unpleasant effects. Once 2 grams caused a sensation of heaviness in the head. No unpleasant results were noted in patients, and no complaint was made during the prolonged use of the larger doses of 1 to 2 grams in the day. In the absence of cases of malaria, the author has tried euchinin in fifteen cases of whooping-cough, fourteen cases of hectic fever in phthisis, five cases of sepsis of various origin, in pneumonia, typhoid fever, and also in several cases of neuralgia. One gram of quinin has the same action in whooping-cough and in febrile states as 1½ to 2 grams euchinin. Beneficial and rapid effects were noted in twelve cases of whooping-cough. The temperature had a lower range in the fever cases after a few days. The results were especially good in one case of supraorbital neuralgia. A dose of 0.6 of quinin or 1 gram of euchinin gave relief when all other nervine tonics failed. This result was seen in eight different attacks. Euchinin is best given in tabloid form. In children it may be given in milk, soup or cocoa. The tannate is much to be recommended. The author thinks that euchinin certainly deserves a further trial, and that it will prove an addition to our resources.

Use of Steam in Puerperal Endometritis.—Dr. E. Kahn, in *Centralblatt für Gynäkologie*, December 5, describes the method of Snegirjow in the use of steam in uterine surgery as a cauterant and hemostatic. After eight years of experience it can be claimed for this agent that it checks hemorrhage, destroys odor, lessens the sensibility of the internal uterine wall and possesses valuable antiseptic properties. It has been used with some success in cases of inoperable cancer of the uterus, in hyperplastic endometritis, in putrid abortion, and recently in puerperal endometritis. The apparatus consists of a metal reservoir mounted on a stand, heated by a large spirit lamp or gas flame. From the top projects a thermometer registering up to 200 degrees C. The steam is conveyed from the dome of the reservoir by means of elastic tubes to which may be attached nozzles of various shapes and sizes. A stop-cock is provided to regulate the passage of the steam. The nozzle is passed cold into the uterine cavity through a speculum; the steam is turned on and made to play upon the affected part in a single jet or in several small jets according to the requirments of the case. The temperature of the steam is kept at 100 degrees C. for two minutes and is then raised to 115 degrees for a quarter of a minute to a minute. The steam fills the uterine cavity, stretching its walls and exciting powerful con-

traction. The patient feels no discomfort except the slight pain caused by the strong uterine contraction. No subsequent ill effects have been noticed even in cases where the infective process had already spread into the tissues around the uterus. The powerful uterine action excited by the steam is found to continue and involution is more rapid. In regulating the temperature of the steam and time of its application, the consistence of the uterine wall must be taken into account. The thinner and softer it is, the lower should be the temperature of the steam; the thicker it is, the higher may be the temperature used and the stronger will be its action. If there is inflammation without as yet pus-formation, the results will be good; but steam should not be used if there are collections of pus in the tubes. If there are blood-clots in the uterus or portions of placenta or membranes, they must be first removed by means of the finger or curette, as steam hastens decomposition in such materials. When steam is brought directly in contact with the internal uterine surface, the scalded endometrium forms a protective covering preventing fresh infection. The subsequent treatment consists of an intra-uterine douche on the second or third day of hot sterilized water or an ordinary saline solution, or a 1 per cent. lysol solution. Nine reports of cases are given, with temperature charts, and the author presents the following conclusions: 1. This form of application is without injurious results and but slightly painful. 2. It removes or diminishes uterine tenderness. 3. It arouses powerful uterine contraction. 4. It removes odor and destroys bacteria directly. 5. Through the closure of the blood and lymph vessels by the coagulation of albumin, it tends to form a protective covering beneath which fresh granulations form.

Experimental Study of Cerebral Compression.—De Gaetano has been making an extensive series of experiments on animals in which he introduced fragments of bone, laminaria or sponge into the cerebral substance, and studied the resulting processes. The tolerance was less as the animal stood higher in the zoölogic scale. The degenerative processes consist in a varicose appearance of the cylinder axes and an extensive diffusion of myelin, with vascular dilation in the zone of compression. Severe compression produces marked optic disturbances, first venous stasis in the optic papilla, more intense in the eye on the opposite side, followed by amaurosis from edematous optic neuritis, whether the pressure is in the occiptal or parietal lobe. The effect of slight compression on the circulation is to decrease the pressure of the blood; with a little stronger compression the blood pressure returns to normal, or is greater than normal, increasing with the amount of compression, to become very high with violent compression. The variations in the pressure are identical, no matter in what part of the brain the foreign substance has been inserted. They are also the same whether the animal has been deprived of its cerebro-spinal fluid or not. But he found that the sanguine pressure increased in all cases, independently of the degree of compression, when double vagotomy had previously been performed. The sanguine pressure is decreased in all cases by irritating the nervous fibers of the dura mater or cerebral convolutions with the electric current, the proportion depending upon the strength of the current. The effect of irritation of the dura mater and convolutions is therefore identical with that produced by slight compression of the cerebral substance. He ascribes this effect to the fact that slight compression irritates the dura mater and cerebral convolutions, which irritate in turn the vagus and thus induce the decreased pressure of the blood. He explains the increased pressure in cases of strong compression by the irritation of the vasomotor bulbar center. If the external jugular is ligated separately and then the entire internal jugular the carotid pressure remains unaltered. The blood pressure in the jugulars of dogs is not affected by any amount of cerebral compression. The respiration becomes superficial and less frequent in proportion to the amount of the compression, whether the cerebro-spinal fluid has been removed or not, but after double vagotomy, the tracings of the respiration cease to show these modifications, and instead it becomes very irregular. Irritating the dura mater or the cerebral convolutions increases the superficiality and rarity of the respirations, which become still more marked when the jugulars are ligated and cerebral venous stasis is thus induced. These phenomena appear suddenly the moment the ligature is completed, but pass away in time and the respiration returns to its normal frequency and grows deeper. The temperature falls with slight cerebral compression less than a tenth of a degree, a tenth with moderate and over a tenth with strong compression. The report published in the *Gaz. d. Osp. e d. Clin.* of January 10 concludes with the deductions that the effect of compression of the cerebral substance is due to the direct irritating action of the compressing body on the dura mater and the cerebrum in the first place, and to the indirect action of the increased endocranial pressure of the cerebro-spinal fluid in the second place. The therapeutic conclusion emphasizes the importance of removing the foreign body with the least possible delay.

Precocious Adolescence in a Girl of Six and a Half Years.—Wladmiroff (*Archiv f. Kinderheilkunde*, B. 21, H. v, vi, p. 360) has reported the case of a girl 6½ years old, who came under his observation on account of rachitic deformity of the thighs and legs. On inquiry it was learned that the birth had been normal, the infant resembling other newborn children. The child was nursed at the breast for a year, when it began to walk and so continued to do for four months. Shortly afterward signs of rachitis made their appearance, and in the second year the deformity of the lower extremities was noticed. At the age of 4½ years a slight growth of hair appeared upon the mons veneris, and at the age of 5½ years the breasts increased appreciably in size. The child was forty-seven and a half inches in height and weighed fifty-five and a quarter pounds, while the circumference of the head was nineteen and a half inches. The girl was pale but well nourished. The musculature and the subcutaneous connective tissue were well developed, the skin was clear and elastic; skull, sternum and especially thighs and legs presented distinct evidences of rachitis. The left foot was supplied with six toes. The size, weight and general measurement were like those of a child of 11 years, while the breasts and the external genitalia were those of a girl of 16 years. While under observation a slight hemorrhagic discharge took place from the vagina for the first time and continued for a period of four days. There was no sign of psychic or nervous abnormality. The child submitted reluctantly to physical examination, but otherwise displayed no manifestation of sexual feeling and exhibited no sign of sexual irritability. The other five children in the family showed only peculiarities in stature, the oldest daughter, of 14 years, being smaller than the child under consideration, and the eldest boy, of 16 years, resembling rather one of 10 years.

The Inguinal Operation for Femoral Hernia.—Edebohl's (*Post-Graduate*, February, 1897, p. 75) expresses the opinion that the classic operation from below Poupart's ligament should be the operation of choice for femoral hernia, the inguinal operation being performed only when special indications exist. In the absence of such indications the method of Bassini (closing the hernial canal and the saphenous opening by suture), modified so that the upper sutures shall include Poupart's ligament and the periosteum of the os pubis, is to be preferred. When the inguinal operation for femoral hernia is indicated the best method consists in opening the anterior wall of the inguinal canal from the external to the internal ring, hooking the spermatic cord or the round ligament out of the way, and cutting through the posterior wall of the inguinal canal. After reduction of the hernia, liberation and high ligation of the sac

and clearing of the femoral canal, the crural ring, if small, should be closed from above by suturing Poupart's ligament to the periosteum of the horizontal ramus of the os pubis. Should the hernial aperture be large a fibro-periosteal flap should be formed and used in the manner described, to close the crural ring. In either case the irritation of the periosteum produced tends to the new formation in and about the crural ring of osseous tissue which will constitute an efficient barrier, efficiently placed against the redescent of the hernia. The saphenous opening may then be closed by sewing the falciform process to the pubic portion of the fascia lata, although this procedure is of secondary importance. The posterior wall of the inguinal canal is reunited by suture and the inguinal canal reconstructed after the manner of Bassini for the radical cure of inguinal hernia. The chief advantages of the inguinal operation for femoral hernia are the possibility and the ease of performance of high ligation of the hernial sac and of high and effective closure of the crural ring. The special indications for the inguinal operation for femoral hernia are, 1, the coexistence of complete or incomplete inguinal hernia with a femoral hernia of the same side; 2, in women the coexistence with femoral hernia of retro-displacement of the uterus which can be corrected by shortening of the round ligaments.

Aids to Cerebral Localization.—Dr. Eskridge of Denver, offers as aids in localization diagnosis a group of five speech-defects, symptoms of interesting variety that might be almost indefinitely extended, but the more valuable are among the summarized below:

1. If the lesion is in the foot of the left third frontal, Broca's convolution in right-handed persons, and in the corresponding portion of the brain on the opposite side in the left-handed individuals, the patient will be unable to speak voluntarily, to repeat words after another, to read aloud, to think in speech, and in the majority of cases to write voluntarily or from dictation so as to be understood, but he can not understand the speech of another. He usually will be able to use and understand gesture expression.

2. A lesion in the oro-lingual center (lower portion of the central convolutions) will cause paresis or paralysis of the oro-lingual muscles, including the lower side of the face, and imperfect articulation, but the patient will be able, with a decided effort, to repeat words after another, to talk voluntarily, to think in speech, and to write, although the letters may be imperfectly formed. There is, as a rule, no omission or transposition of letters or words unless the lesion is sufficiently extensive to affect the adjacent cortical centers or their commissural fibers. It is possible that this center is bilateral; that a lesion on either side may give rise to somewhat similar symptoms, and that the loss of function in the affected muscles will not be completely abolished from a unilateral lesion.

3. A lesion in the foot of the second frontal convolution on the left side in right-handed persons or on the right side in left-handed individuals (the probable orthographic center) will be attended by disturbances in writing, consisting of inability to write from inability to spell. In the only case reported of this character the patient formed all the letters of the alphabet perfectly, but he omitted, transposed and substituted letters to such an extent that his writing was unintelligible. He wrote well if the words were spelled for him.

4. A limited lesion in the posterior two-thirds of the first and second temporal convolutions will be attended by word-deafness, and inability to write at dictation, pure word-deafness. In a more exhaustive lesion in this region, mind deafness with paraphasia and some disturbance in reading and writing will be added. The greater the extent of the cortical and subcortical areas involved the more marked the paraphasia and other symptoms of sensory aphasia.

5. A lesion involving the angular gyrus and adjacent parts will cause word-blindness and inability to read, defects in writing, copying and in speaking. In these cases paraphasia is often present. If the lesion affects the parts posterior to the angular gyrus, mind blindness may be added.—*University Medical Magazine*, January.

Mental Effects of Hasheesh.—In a recent number of the *Journal of Mental Science*, in which Dr. Clouston gives an account of the Cairo Asylum, he also gives some interesting information obtained from Dr. Warnock, superintendent of that asylum, in reference to the prevalence and the nature of the mental disturbance associated with the excessive use of hasheesh. Thus of 253 admissions to the asylum in the latter half of the year 1895, no less than 40 were admitted on account of symptoms attributed to the excessive use of the drug. In 41 per cent. of all the male patients hasheesh, alone or in combination with alcohol, caused the mental symptoms, while this was the case in only 7 per cent. of the females. As to whether there is a special recognizable form of mental disturbance produced by hasheesh, Dr. Warnock's conclusions are that in a considerable number of cases in Egypt hasheesh is the chief, if not the only, cause of mental disease, although it is doubtful whether hasheesh insanity can be diagnosed by its clinical characters alone. The usual types are three in number: 1. Hasheesh intoxication—an elated, reckless, "swaggering" state, with optical hallucinations and delusions of demoniac possession. The condition may be actual delirium, milder and less aggressive than that of alcohol, and exhibiting none of the ataxic phenomena of the latter. Recovery takes place in a day or two or less, and the patient usually recognizes the cause of his excitement. An interesting medico-legal question arises in connection with this intoxication, viz., whether the subject of it is to be held responsible for crimes committed in this state. 2. Acute mania is another form of hasheesh insanity. Terrifying hallucinations, continued restlessness, sleeplessness, incoherence and exhaustion are the prominent symptoms. Such cases usually last some months and do not always recover. 3. This insanity also takes the form of weak-mindedness. The patients are usually quiet and well-behaved, but are over-talkative, easily pleased, excitable about small things and unconcerned as to the future. Beside these three types, Dr. Warnock says there are numbers of cases of chronic mania, mania of persecution, etc., said to be produced by hasheesh, but with these he is not familiar. Female lunatics in Egypt are usually kept at home, even in the larger towns, but he also admits "it is at present quite impossible to even approximately gauge the extent to which lunacy prevails in the country generally." No doubt harmless lunatics are in some instances kept in their homes, but Egypt is now constantly traversed by English sanitary inspectors, to say nothing of police, irrigation and preventive officers, and it is difficult to understand how the more violent cases could be systematically kept in concealment. Dr. Warnock bases his conclusion that in Egypt female lunatics are usually kept at home on the ratio between the sexes in English asylums, but the conditions of life in the two countries are so different that his deductions would seem to be by no means inevitable. The general health of the inmates is not good. "Internal parasites affect nearly every patient, anchylostomas, ascarides and tapeworms being found at nearly every autopsy. Bilharzia also is very common." Melancholia is extremely rare among natives of Egypt. Five per cent. of the admissions were due to this form of insanity, but nearly all the sufferers were foreigners. The alcoholic insanities are seldom seen, and suicidal tendencies are well-nigh unknown. General paralysis of the insane, also, is not common, the admission rate for the year having been under 3 per cent. In connection with the latter affection Dr. Warnock makes the following remarks: "The idea that sexual excess and syphilis are important agents in the causation of general paralysis is not strengthened by these observations, since both these causes have free play in Egypt, and yet apparently little general paralysis results. The Egyptians are usually easy-going and are not subjected to overwork or strains, nor are they often addicted to alcohol."

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SATURDAY, MARCH 13, 1897.

THE MECCA PILGRIMAGE.

Now that the troubles with the "unspeakable Turk" appear to be coming to a head in spite of the efforts of the powers, it is timely to ask the question if the insanitary practices of Mahommedan superstition may not receive some attention. One or two non-Moslem travelers have reported something of the conditions that exist in Mecca, during the immense annual pilgrimages and they have been pretty thoroughly shown up by ERNEST HART, PROUST and others within the last three or four years. The Turkish government, which, were it an enlightened and honest one, could do more than any other for the general welfare in this regard, cares for nothing but to have its own way and to prevent outside interference by lying and diplomacy; sanitation of any kind is altogether outside of its sphere of action and the welfare of the world in general does not trouble its calculations. So whenever an epidemic exists it puts nothing in the way of its extension and if it is not at hand it practically favors every possible means for its origination. It may also be truthfully said that the British government, which has under its control the fountain head of cholera, has also in the past been criminally remiss, and the salvation of Europe from this plague has not been due in any manner to its agency, but to the results of the labors of scientific investigators who have practically disarmed the infection by demonstrating its source and the method for its management.

The existence and spread of the bubonic plague in oriental countries at the present time puts a new face on the matter, and brings before us another possible calamity. It may be that the danger is slight of its affecting Europe, and the fact that modern bacteriologic science is awake to meet every contingency, is perhaps an adequate safeguard, but yet it would be still more satisfactory could we feel assured that all possible precautions were being taken. The Mecca pilgrimage has been in the past, and still is one of the greatest dangers to the health of Christendom and it is possible that in a single year it might cost more of human lives and human treasure than even a Jehad or holy war of the Moslem against the Christian world. The outcome of such a war would not be doubtful, as intelligent Mahommedans are well aware, and hence the danger of its occurrence is minimal; it is only one of the bugaboos that the wily Turk employs to reinforce the timidity and jealousy of time-serving politicians. If anything, however, should result from the present critical conditions in the Levant, to bring about a more complete limitation of the powers of barbarism in that quarter, it is to be hoped that among other desirable happenings the sanitary control of the Mecca pilgrimage by some enlightened European power or powers, so as to do away with its present actual disease breeding and disease spreading function may be sometime or other secured. Such religious observances are only commendable when they work no general harm to mankind—"by their fruits ye shall know them"—and the Mecca pilgrimage as it has been and is at present conducted is a pestilential nuisance to the civilized and semi-civilized world. It may be difficult to fully control and impossible to prevent, but it is certain that it can be in some ways amended for the better, and the time will come when the necessity of this will be recognized by the nations. War in the East and general disturbance of European concord would undoubtedly be accompanied by many and great evils, but, to amend a common quotation, "peace has its slaughters as well as war," as recent history has demonstrated, and they are a part of the price paid for Mahommedan rule in the East. A much larger expense in human life is that to be attributed in the past to the Mecca pilgrimage, the greatest pestilence-transporting agency of the present century. However the Cretan and Turkish troubles may be treated, it is possible that an invasion of Europe by the bubonic plague via Mecca and the Suez Canal would bring the powers to a realization of the necessity of meeting one phase of the Eastern question promptly and thoroughly.

THE VALUE OF FLUID EXTRACTS AND OF TINCTURES PREPARED FROM THEM.

From time to time in pharmaceutic literature and to a less extent in medical literature, may be found animated discussions between pharmacists and physicians as to the value of fluid extracts, and more par-

ticularly as to whether it is proper and right to prepare tinctures from fluid extracts, particularly from those fluid extracts which have been assayed and standardized.

In the Alumni Report of the College of Pharmacy for Feb. 18, 1896, a very considerable number of its pages are devoted to the discussion of this important question, which on its surface is of little interest to the practicing physician, unless he stops to consider it thoughtfully, when it immediately becomes one of the most imporant questions to which he can devote his attention, for too often failures in treatment arise not from a lack of judgment on the part of the physician, but because the drugs which he employs to accomplish the results which he desires, are, for various reasons, incapable of producing the physiologic effect which is sought for. In the article which we have quoted we find a discussion by Messrs. KEBLER, ENGLAND, REMINGTON and others, in which the matter is pretty well covered.

It will be remembered that fluid extracts have become popular preparations for several reasons, the chief of which have been, 1, that they were standard preparations, or in other words, that each cubic centimeter of the fluid extract equals one gram of the crude drug, and the physician prescribing the fluid extract may therefore rest assured that his patient will develop a physiologic effect similar to that caused by the ingestion of the crude remedy, without any of the disadvantages associated therewith; 2, that being concentrated preparations, doses of the fluid extract must necessarily be small; and, 3, that if properly made and taken care of fluid extracts represent fairly permanent preparations.

But it is evident that with the processes recommended by the United States Pharmacopeia for the making of fluid extracts, that we have no absolute guarantee that the original drug from which the fluid extract is prepared, has a definite and equal strength with another fluid extract which is prepared from another lot of the crude drug coming from another source. Thus a plant or tree growing in very sterile soil and under disadvantageous circumstances, might very readily contain in its bark, leaves or other parts far less alkaloid or active medicinal ingredient than another plant of the same character growing amid surroundings that were exceedingly favorable to the development of these drugs, or their constituents, and yet the bark in each case might be so similar in appearance as to prevent the buyer from recognizing any difference between them. It would only be by chemic analysis and determination of the alkaloids which given samples contained, that the pharmacist would be able to obtain reliable crude products of equal strength, and from them prepare finished products which, because of their similarity, would not vary one from another in their physiologic action. In other words, given a crude drug which on analysis is found to contain a certain percentage of alkaloid, or a fluid extract which contains a certain percentage of alkaloid, it must stand to reason that all fluid extracts which contain identical quantities of alkaloid must be equally valuable in therapeutics, even though the processes by which they are prepared differ with each manufacturer.

The advantages, therefore, of employing a fluid extract which contains a known and definite quantity of the active constituents of a remedy is very great, and if the physician would always prescribe a fluid extract made by some manufacturer in whose honesty he has confidence, and with whose standard he is familiar, he can vary his dose at will, with no other uncertainty as to the success of his treatment than possible variations in his patient which may arise from idiosyncrasy. In other words, any change in effect will depend upon the patient and the dose, and not upon the possibility that the dose taken on Wednesday contains in reality twice as much of the active ingredient as that taken the previous Wednesday, when the prescription was filled with the fluid extract made by a different manufacturer.

A few years ago the writer had a very good illustration of the necessity of using such standardized preparations, for he found that a tincture of nux vomica made by one of the foremost druggists in one of our large cities, was almost four times as strong in the quantity of strychnin and brucin which it contained as another tincture made by a druggist occupying an equally prominent and reliable position, so that if the physician were to double the dose of the prescription, and the prescription were to be put up at the first druggist's we have named, the patient would be receiving eight times as large a dose in reality as he had originally been taking; or, in other words, if the first dose was ten drops of the tincture of nux vomica, the second prescription would give him the equivalent of eighty drops of the first tincture. It is manifest, therefore, that the possibilities of such variations should be made as remote as possible, and for this reason it seems evident that physicians should always prescribe fluid extracts in preference to tinctures if possible, and further that they should employ fluid extracts which are carefully assayed and standardized even although different manufacturing druggists have set for themselves varying standards.

Thus, supposing there were four or eight large manufacturers, each of whom had a standard for his fluid extract, in all probability these standards would vary very little, and the variations certainly would not be as great as those which would be possible should the physician rely upon non-standardized fluid extracts, each one of which would vary with the technical skill of the retail druggist who prepared it, and there would be, therefore, a possibility of a thousand

variations in a large city, instead of four variations. It is true that tinctures are exceedingly popular preparations, but even the Pharmacopeia does not throw about them the precautions which result in desirable exactness, for pharmacopeial tinctures do not in any way represent a definite quantity of the crude drug, much less do they represent a definite quantity of the alkaloid which the crude drug contains, for the process of exhausting the crude drug is not so complete nor is it designed to be so accurate, and so far as we know, no tinctures which are made direct from the crude drug are standardized by assay.

Recognizing the facts which we have named, both physicians and pharmacists have been tempted more and more to cease employing tinctures made according to the pharmacopeial process and either to rely on fluid extracts, or to employ tinctures which are made by the addition to the fluid extract of a menstruum which will dilute it to approximately the same strength as the tincture is supposed to possess, and it is about this question that debate now seems to be most hotly waged. In the discussion which we have quoted, the point was first taken, and very correctly, that if all physicians, in writing a prescription for a tincture, are supposed to demand the tincture named in the United States Pharmacopeia, it goes without saying that the honest druggist must dispense a tincture prepared according to the process therein named; but if, on the other hand, it can be shown that the pharmacopeial process for the manufacture of a tincture does not give the best results, and if the physician has full confidence in the scientific acumen of his druggist, and further, is in touch with the facts that we have named, it certainly seems to the advantage of both physician and patient that a tincture should be employed made from an assayed fluid extract in the manner that we have described. Particularly is this the case toward the close of a decade, when the process recommended in the Pharmacopeia last issued may not represent by any means the latest advances in analysis or in the preparation of medicinal compounds. The only difficulty which we see in the way of preparing tinctures universally from standardized and assayed fluid extracts lies in the possibility that it may be impossible to dilute a fluid extract without precipitating some of the substances which it contains; but here, again, it is probable that in many instances the precipitate is practically without physiologic power and does not carry with it to the bottom of the vessel the soluble active principles which are intended to produce a given physiologic effect.

In some letters concerning this matter published in the Report of which we have spoken, Dr. E. R. SQUIBB takes the ground, which may be legally correct, but which is scientifically not advisable, that it is objectionable to resort to any practice not authorized by the United States Pharmacopeia, and that tinctures made by dilute fluid extracts are not official, but are substitutes for the official tinctures. Mr. CHARLES RICE makes the following proposition: If a fluid extract differs from a tincture only in the quantity of the solvent or menstruum, and if the dilution of the former to the strength of the tincture by the addition of more of the solvent throws nothing out of solution, the two tinctures must be alike in the quantity of active ingredients, and therefore be alike in therapeutic effect. Second, if the dilution of the fluid extract to the strength of the corresponding tincture by the addition of even the most favorable menstruum causes a precipitation the two tinctures may be regarded as alike in therapeutic effect, for the precipitate contains none of the useful medicinal constituents.

As Dr. RICE states, these propositions are so self-evident that they can not be gainsaid, and we can therefore lay it down as a rule that physicians, when prescribing tinctures, should employ those which are made by the dilution of standardized fluid extracts, whenever such fluid extracts can be diluted in any way which will not alter their physiologic activity.

As to the third proposition, Dr. RICE states that the practice of preparing tinctures from fluid extracts in all cases where dilution causes obvious physical changes, such as precipitation and gelatinization, is not to be recommended for general use, but may be adopted in cases of necessity or urgency when a prescription calls for a tincture of a drug of which only the fluid extract is obtainable. With this proposition we also agree and believe that in many instances a tincture so prepared, with all its disadvantages, will give more definite and measurable results than the ordinarily prepared tincture, which has no definite strength.

Mr. LLOYD of Cincinnati points out that where constituents of the drug are firmly established and known, and in which no question exists concerning the exact value of the fluid extract, he can see no question but that the tincture may be made by diluting the fluid extract, and he even goes further and says that, owing to the difficulty of extraction in the case of the drug nux vomica, unless the tincture is assayed in order to establish its value, the method of preparation from the standardized fluid extract is to be preferred to blind extractions from the standardized drug. He also states that in his belief, certain tinctures can be made as reasonably (or even cheaper), from fluid extracts, and with a greater uniformity than from the drug.

Against the views which we have urged, Mr. JOSEPH ENGLAND strongly protests, believing that the value of standardized fluid extracts over those which have not been standardized in actual medical practice has been much exaggerated, but in this we do not agree with him and, except in a few instances, we do not think that the objection which he urges against diluting standardized fluid extracts will hold in the mind

of the practicing physician, even although Mr. ENGLAND's objections are pharmaceutically correct. For even if the precipitate does occur on the fluid extract being diluted, the resulting medicinal preparation, while pharmaceutically inelegant, is practically as efficient from a pharmaceutic point of view, provided, as is so often necessary in other instances, the bottle is shaken before its contents are taken.

Let us use standardized fluid extracts of known and definite strength and avoid the risk of using tinctures made from them, for it is better to know that a slight decrease in activity may result, than to be in the dark as to whether the tincture is prepared from an inert or an abnormally powerful crude drug.

THE PHYSICIANS OF THE FRENCH REVOLUTION.

Among the professions particularly active in the French revolution, the lawyers and physicians are especially distinguished. Though the latter did not possess the same influence as the lawyers they nevertheless played a remarkable part in the stormy scenes of that stupendous new creation of Europe. Many of them entered into the hazardous career which often raised the lowest citizen to power and renown. Of some of them the names are engraved on the iron page of history; others are lost in the rolls of committees, directories, etc. Among the former are found, though in widely different degree and with widely different principles, MARAT, GUILLOTIN, CHAMBON DE MARVAUX, CABANIS, BAUDAT, BOUSQUIET, BOURRU, DUGERS, CLEDEL, MANNE, EUBOUCHET, SOUBERBIELLE, THIERY, FURCROY, LAVOISIER, PLISSIER, PLANCHARD-CHATTIERE, TAILLEFER, LARREY, PINEL, etc. The most luridly peculiar figure of these is that of MARAT who, previous to the time when deep sense of popular oppression so violently agitated his mind, was of a mild and peaceable temperament. He was devoted to science and ten or twelve works proceeded from his pen, witness his "Traité de l'Homme." Born in the neighborhood of Neufchatel, in Switzerland, MARAT practiced his profession in Paris. His name is inscribed in the books of the Faculty of Medicine in the year 1785. At that time he lived in the Rue de Bourgogne and was attached as veterinarian to the Duc d'Artois, afterward CHARLES X. MARAT was a thick, short man, with a degenerate face, restless with envy, pride and suspicion. A countenance expressive of a low uncompromising ferocity; withal his stature was unattractive and his manners inelegant. Yet his language and style were in singular contrast with what he always had hitherto been. The same man is hardly discernible in the author of the "Treatise on Medical Electricity," and the editor of that latterly rabid journal, *L'Ami du Peuple*. MARAT was a paranoiac degenerate. There was little in the early patience with which he bore insults from the aristocracy and the charlatans whom they promoted and encouraged, to indicate the later development into that personification of the wild-beast spirit with which the mob met and conquered the aristocracy and plutocratic farmer-generals. MARAT's first conflict with his brethren was about a management of phthisis practically based on lines which guide its treatment today. He brought it in professional manner before the Paris Academy of Medicine, but fiercely resented the attempt made to crush it in the interest of a wonder-working relic of a Paris church. LAVOISIER, the chemist, then a farmer-general, was not ashamed to engage in this intrigue, whence MARAT's fierce denunciation of him as a quack. The neurotic taint in MARAT, such treatment naturally tended to develop. Of him, CARLYLE paints the following two vivid pictures, not destitute, however, of strong touches of caricature. At the States General (according to CARLYLE) MARAT thus appears:

"Surely also in some place, not of honor, stands or sprawls up, querulous, that he, too, though short, may see, one squalidest, bleared mortal, redolent of soot and horse drugs, JEAN PAUL MARAT of Neufchatel. O, MARAT, renovator of human science, lecturer on optics; O, thou remarkablest horse leech, once in D'Artois stables, as thy bleared soul looks forth through thy bleared, dull, acrid, woe-stricken face, what sees it in all this? Any faintest light of hope, like day spring after Nova Zembla night. Or is it but blue sulphur light and spectres; woe, suspicion, revenge without end!"

Of MARAT's appearance at the fall of the Bastile, CARLYLE thus speaks:

"One poor troop of hussars has crept reconnoitering, cautiously along the quais as far as the Pont Neuf. 'We are come to join you,' said the captain, for the crowd seems shoreless. A large-headed, dwarfish individual of smoke-bleared aspect shambles forward, opening his blue lips, for there is sense in him, and croaks: 'Alight, then, and give up your arms.' The hussar captain is too happy to be escorted to the barriers and dismissed on parole. Who was the squat individual? Men answer: It is Dr. MARAT, author of the excellent pacific Avis au Peuple.'"

The same causes which revolted the French people against the English, the royal family and the aristocracy, treachery, fixed MARAT's suspicional delusion. He suffered from a horrible dermatosis of the scrotum and perineum, which forced him to remain in his famous slipper bath for months together. It was in this bath he was stabbed by CHARLOTTE CORDAY. His body was conveyed to the Pantheon, but afterward at the Revolution of Thermidor thrown into the common sewer, where its winding-sheet was discovered by BRUNESEAU when he inspected the sewers of Paris in 1805.

The lynch law of the French Revolution is embalmed, not in the name of MARAT, but in that of that most genial, most philanthropic, yet most ill-omenedly famous of men, Dr. GUILLOTIN. One of the most skilled sanitarians of his time, a pioneer in prison reform, a philanthropist shocked by the tortures of the public executioner, he sought to save pain by substituting the certainty of machinery for the uncer-

tainty and resultant brutality of a swordsman. His name in its horrible fame is likely to outlive CÆSAR'S. GUILLOTIN lived many years after the date of his discovery; nothing pained him more than its mention. Horrible recollections shook him, when, as sometimes happened, some mischievous fool addressed him with "Why, Doctor, how come you to have escaped—you know what death?" He died in 1814, of diabetic carbuncle on the left shoulder. Many sanitary reforms instituted by him still guide modern sanitation. His confrère, BOURRU, delivered his funeral oration. BOURRU, in 1793, re-baptized his two sons, one Hippocrates and the other Galen.

There was a curious similarity in fortune and skill between AMBROSE PARÉ and LARREY. The candid, able, modest Huguenot surgeon, who won the affection and esteem of the butcher of St. Bartholomew, CHARLES IX., resembles closely in clinical insight, in surgical skill, and in conscientious devotion to professional duty, LARREY, whom NAPOLEON I. characterized as the most virtuous man he ever knew. PARÉ, dressing the wounds of the victims of the "Bartholomew," and LARREY, dressing the wounds of the victims of the Moscou retreat, under snow, sleet and Cossack shot, are two equally pathetic pictures of professional devotion. Another pathetic picture is that of PINEL soliciting, amid the "Terror," from the potent Committee of Public Safety, permission to strike chains from the insane and thus inaugurate a reform in psychiatry which remained unaccomplished more than three-quarters of a century later in the progressive city of Chicago.

Among the other physicians remembered on account of medical practice only, is Dr. SOUBERBIELLE, who was physician during the Revolution to MARAT, ROBESPIERRE and DANTON. His case book disappeared during the Franco-Prussian War. CABANIS, an eminent physiologist, was friend and physician to MIRABEAU. LAVOISIER made up for his defense of faith-cure, by his exposure of mesmerism, of which CARLYLE ("French Revolution") draws the following picture:

"Observe Herr Doctor MESMER, in his spacious magnetic halls. Long-stoled, he walks, revered, glancing upward, as if in rapt commerce, an antique Egyptian hierophant in the new age. Soft music flits, breaking fitfully the sacred stillness. Around their magnetic mystery, which to the eye is mere tubs with water, sit breathlessly, with rod in hand, the circles of beauty and fashion, each circle a living circular passion flower, expecting the magnetic afflatus and new manufactured heaven-on-earth. O women, O men, great is your infidel faith. A parliamentary DUPORT, a BERGASSE, D'ESPREMENIL we notice there. Chemist BERTHOLLET, too, on the part of Monseigneur DE CHARTRES. Had not the Academy of Sciences, with its BAILLYS, JUSSIEUS, FRANKLINS and LAVOISIERS interfered. But it did interfere. MESMER may pocket his hard-earned money and withdraw."

This committee reported that mesmeric phenomena were the result of a sujective impression on the mind of the patient, and not due to a special force, August, 1784. Among the physicians of the time who should not be forgotten, especially by Americans, is Dr. MATTHEW LAURENT MICHEL MANNE. He was born in France, March 25, 1734, and became a navy surgeon in 1756. He followed Admiral D'ESTAING to America during the Revolutionary War and served throughout, fighting for American liberty. After the Revolution, he returned to France, where he became Surgeon-General to the Port of Toulon. He was a member of the Academy of Surgery and Commander of the Legion of Honor. He was the author of two valuable works, "Surgical Diseases of Bones," and "Fractures Dependent on Muscular Action." MANNE died March 19, 1806. The United States never even thanked him for his services to liberty.

"DR." RUTLAND IN THE TOILS.

It is with pleasure that we inform our readers that the Wisconsin Eclectic Medical College, so-called, and its proprietor, the alleged "Dr." FRED RUTLAND, have come to grief. "Dr." RUTLAND was arrested in Chicago last week, and held over in five thousand dollars bonds to appear before the federal grand jury of the Northern District of Illinois in answer to a charge of carrying on swindling through the United States mails:

For many months we had been in receipt, from time to time, from various members of the ASSOCIATION, of letters and circulars issued by this precious rascal, in which, in varying terms all more or less evasive, it was evident that diplomas were offered for sale at prices ranging from thirty-five to fifty dollars. We first induced one of the daily papers of Chicago to take the matter up. They sent a reporter to RUTLAND'S house, as already stated in a previous number of the JOURNAL. The circulars and letters continued to be sent, and in the meantime we submitted the case to the Postmaster of Chicago, and to Capt. STUART, the Postoffice Inspector, who detailed Inspector GOULD on the case. On conversation with this officer, we decided to allow one of the office boys of the JOURNAL to purchase a diploma, and he entered into correspondence with "Dr." RUTLAND to that effect. In due course of mail he received a circular signed by the said RUTLAND, in which it was stated it would be necessary for him to answer certain questions which were propounded. These questions were as follow:

EXAMINATION BLANK.

1. Give your name. 2. Have you ever studied medicine in any medical school or college?—If so, for how long and where. 3. Or under a preceptor or physician. If so give name or names. 4. Or in private studies. How and what books have you studied. 5. Have you ever practiced medicine either as a profession or otherwise?—For how long. 6. What system of medicine do you prefer? Allopath, Homeopath, Eclectic or other. 7. What do you understand by the term an element? 8. Define a chemical change. 9. Define the term Decomposition. 10. Define the term Materia Medica. 11. Define the term Therapeutics. 12. Define the term Pharmacy. 13. Define the term Toxicology. 14. Define the term Obstetrics. 15. Name say 30 or more remedies which you consider in the front rank as being of most service to man. 16. What is the

office and use of the Brain in the human anatomy and to what diseases is it most liable? 17. Same of the lungs. 18. Same of the heart. 19. Same of the Liver. 20. Same of the Spleen. 21. Same of the Kidneys. 22. Same of the Intestines. 23. Give an outline of how the bony frame work of the body is built up and name some of the more important bones. 24. Same of the Arterial and Venous system. 25. Same of the Nervous system. 26. Outline your treatment of Bronchitis, Cancer, Consumption, Diphtheria, Erysipelas, Fever (Scarlet), Measles, and any other troubles you have particularly studied or treated successfully. 27. What treatment would you give a case of poisoning by Belladonna, Digitalis, Chloroform, Carbolic acid, Nitric acid and Nit Silver? 28. What is a Tonic Medicine? 29. What is an Alterative? 30. What is an Antipyretic? 31. What is a Cathartic? Name 2 or more of each of these classes. 32. What is the first stage of childbirth? What is the second stage of childbirth? What is the third stage of childbirth? 33. How would you reduce a dislocation of the elbow joint? 34. How would you reduce a dislocation of the hip? 35. What is the essential difference between sterility and impotence? 36. Do you consider it good practice to administer as a regular thing such a class of medicine to a sick person which would under ordinary circumstances make a healthy person sick? 37. Give your ideas of what characteristics a physician should have to make him or her successful.

Do not make your answers on this blank. Use a separate sheet or sheets for this purpose. This blank must not be returned.

The following are the answers given by the applicant mentioned:

1, ———. 2, No. 3, No. 4, Only in a general way. 5, No. 6, Allopath. 7, A portion or part. 8, A change produced with aid of chemicals. 9, In state of decay. 10, Pertaining to medicines. 11, Healing remedies. 12, Drugs. 13, Science of poisons. 14, Childbirth. 15, Quinine, belladonna, opium, brandy, epsom salts, castor oil, laudanum, pepsin, tincture of arnica, mustard, Dover's powder, ginger, chloroform, ether, port wine, wormwood, iodin, whisky, tincture of iron, chloral, celery, coca, arsenic, extract of beef, cocain, kola, charcoal, codliver oil, vaselin. 16, Seat of intelligence, apoplexy, fever. 17, Breathing organs, consumption, pneumonia. 18, Circulates the blood, heart disease. 19, Strains the blood, liver complaint. 20, Use not fully known. 21, Secretion of urine, Bright's disease. 22, To digest food, dyspepsia. 23, The bony framework of the body is built up to protect the vital organs. Some of the more important bones are: skull, back, shoulder, hip and collar bones. 24. 25. 26, Treatment would vary according to severity of disease. 27. Warm water and salt, to cause vomiting, and then coffee or other stimulant. 28, Strength producing. 29, A change for the better. 30, Containing iron and sulphur. 31, Purgative. 32. 33, Force arm back into position and splint. 34, Force into place and bandage. 35, Sterility means barren and impotence the lack of sexual power. 36, No. 37, A constant endeavor to acquire more knowledge and the ability to make good use of what he or she already has.

The young man answered the questions so as to make them ridiculous as possible as he was entirely without technical knowledge. These being sent to RUTLAND, in due time a diploma bearing the coveted letters, "M.D.," was sent through the express office, C. O. D. As the young man had no particular use for the diploma, Inspector GOULD was immediately communicated with. Mr. AHNE, a young man from Wisconsin, acting on information published, it is said, in the *Tribune*, and under authority from Wisconsin, and the young man from the JOURNAL office, proceeded to RUTLAND'S house in Chicago, where Mr. GOULD was introduced as a prospective student, and RUTLAND offered to sell him a diploma on reasonable terms. The interview ended, however, by RUTLAND accompanying the Inspector and his amateur assistants to United States Commissioner HUMPHREY'S office, who, after a hearing, bound that worthy over to await the action of the grand jury under the sum of five thousand dollars.

The reason why a "fraud order" was not issued by the postoffice department, so as to stop the mail and circulars being sent, was that this would not prevent RUTLAND'S carrying on his business through the express companies, and he would simply laugh at such an order and continue his infamous work. If, however, he becomes indicted by the grand jury, it will probably result in his speedy punishment; at least the machinery of the law has been set in motion in the proper direction.

The exposure of the books of "Dr." RUTLAND showed that he had issued his diplomas to a great many people. We print a partial list in another column.

Attorney-General MYLREA'S suit in Madison, Wis., to annul the charter, came to an end March 8, by "Dr." RUTLAND'S voluntary appearance and the filing with the Secretary of State of a formal notice of the dissolution of the corporation, the "Wisconsin Eclectic Medical College." This may possibly prevent his incarceration, but we shall see.

TWELFTH INTERNATIONAL MEDICAL CONGRESS.

Professor NICHOLAS SENN of Chicago has accepted an invitation to deliver the address on Surgery at Moscou. We are not advised who will give the other addresses. These orations have always been considered as the higher professional honors of the Congress.

CORRESPONDENCE.

Acute Otitis Media.

PERU, IND., March 8, 1897.

To the Editor:—In the case of acute otitis media in the person of Dr. Merrill Hopkinson of Baltimore, and reported by him in the February 27 number of our JOURNAL, the course of his ailment, infection of the middle ear by the product of a mild attack of post-nasal catarrh, after using a nasal douche, by forcibly blowing the nose, and his treatment as outlined by him does not occur to me to harmonize very well, even though he considered that his treatment obtained good results.

In the first place, if his ear was infected as he states, and by the product he mentions, the indications would have been to use a Eustachian catheter in connection with an air-bag, and have blown out the offending substance, instead of continuing to jeopardize his sound ear as well as the crippled one by holding the nose and inflating the ears in the same manner, and with the product of the acute catarrh in the post-nasal, as when the ear was first infected, as he says he did. In the second place heat and moisture are both essential to suppuration, and by using this combination he favored that condition; whereas he should have used dry heat, the hot water-bag or salt-sack, which would have burned the moisture of the involved tissue and epithelium, thereby lessening the pressure and in consequence the pain. The temporary relief from pain that he obtained from the use of the hot water as described, was from the heat alone, and the increased pain following the relief was due in a measure to the over-supply of moisture.

Thirdly, the temporary relief he obtained following his dose of pilocarpin, was due to the relaxation, partially from the shock it caused the system through the cardiac center, and partially through the diaphoretic effect (which effect is very

closely connected with the shock as mentioned above), and thereby removing the local pressure by lessening the fluid and hindering the blood supply by this drug's action on the heart center.

Now as to his recovery. His infecting substance, even though it might have been the catarrhal product (but was probably only a drop or more of the fluid he had been using) was not of a pus-producing character, and therefore we would have scarcely expected suppuration even under more unfavorable treatment than was used. He states that upon the eighth day the inflammation subsided rapidly, which I would suggest is about the usual course of all simple inflammations of like character, regardless of treatment. After the process of such an inflammation has once fully begun it passes through the three steps of engorgement, deposit and resolution, which requires ordinarily from six to ten days as in acute tonsillitis, etc.

Now, as to what the Doctor should be mindful of concerning his ear. Just such cases are the ones that most often lead to defective hearing, and once fully crippled by the process so many times following such inflammations, it is the most difficult to restore.

The preventive treatment then should be occasional mobilization of the drum membrane and ossicles together with the use of the Eustachian catheter and air-bag. This will prevent the anchylosis of the ossicles and stiffening of the drum membrane and the closing by adhesion of the Eustachian tube.

J. O. MALSBURY, M.D.

PITTSBURG, PA., March 5, 1897.

To the Editor:—The instructive report of a case of acute otitis media in the JOURNAL of Feb. 27, 1897, by Dr. B. Merrill Hopkinson of Baltimore, Md., in which he figured and suffered as a patient, leads me to give to the readers of the JOURNAL some instructions that I have for many years carefully enjoined upon patients and the profession who use the nasal douche in any form, viz., *to blow one side of the nose only at a time* after using the douche or after snuffing fluids up into the nares. It is a physical law that fluids will pass always in the direction of the least resistance. Hence, if one naris is left open as must be done to blow it in this manner, it is quite impossible to blow fluids into the Eustachian tube and thereby set up an acute otitis media and nearly all the cases of that very painful character in my practice have been caused by a disregard of this simple injunction. "Blow only one side of the nose at a time" is well worthy of attention, not alone after the use of the douche but at all times, since it is the most efficient means of not only cleansing the parts, but is nearly free from the possibility of causing dizziness and entrance of fluids into the Eustachian Tube with all the attendant evils.

I can not refrain from using this oppotunity to speak of the charming sketch of a country doctor in the same issue of the JOURNAL by Dr. Thos. H. Shastid of Galesburg, Ill. It is quite worthy a place beside the lovely character portrayed by Ian McLaren in the "Bonnie Brier Bush," and the portrayal is quite as touching to one's better nature. And now, Mr. Editor, while paying compliments I feel that much is due you for the uniform improvement of our JOURNAL in all its departments. It is now the best journal in America and while its capabilities are still not all developed, they are making a headway that no one can fail to notice.

W. H. DALY, M.D.

Foreign Products Advertised.

NEW YORK, Feb. 25, 1897.

To the Editor:—For the life of me I can not see how some of our practitioners can legitimately maintain the position which they occupy. They will refuse to prescribe "mercauro" for example because it is proprietary, notwithstanding its formula was long ago published in the JOURNAL, while on the other hand they will not only prescribe, but will write about and talk about foreign products which are not only proprietary in the fullest and widest acceptation of the term, but are also patented, yes, absolutely patented! These foreign products come to this country and the owners of the products will flood this country with all sorts of extracts from supposed foreign journals, and will quote high-sounding foreign names of medical practitioners. The physicians of this country swallow the whole story, use the products and then the American journals go ahead and print clinical reports regarding them. This matter strikes me as being an injustice to American progress in chemistry and therapeutics. Here we have products which have been heretofore considered chemic impossibilities, yet we have been able to produce them, in spite of the fact that chemic literature states that they can not be made. It strikes us that we should be commended for this progress and not condemned. It strikes me that we should at least be upon an equal footing with the foreign products, for we are Americans, this is America, the patients upon whom the products are used are Americans and the large proportion of physicians can be called Americans. I can not see why a foreign product should be received with open arms and taken into the ethical fold, when everything in connection with that product is doubly at odds with the code of ethics. Yet the foreign product is received with open arms, while ours is branded as the "yellow dog." This is really a serious subject and is getting more and more serious. The foreigners have a big advantage over us under the existing circumstances, for the manufacturers go ahead and make their own statements, attribute them to some doctor with a foreign name, resort to all sorts of measures to have the articles quoted, and I am sorry to say that they meet with success. I am not opposed to competition, on the contrary I am glad to see it, but I don't call it competition where one man is thrown upon the ground and tied hand and foot, and his opponent free handed is allowed to hammer him to death. I certainly feel that this subject is worthy of full discussion and comment, and would indeed appreciate the receipt of a letter from you stating your views upon the subject. With kindest regards, believe me Cordially yours,

AN AMERICAN MANUFACTURER.

Modern Immorality.

CONANT, FLA., March 2, 1897.

To the Editor:—Dr. E. S. Bullock, in the New York *Polyclinic* and Dr. A. R. Reynolds, in the JOURNAL, discuss the moral condition of the nation and its bearing on the future well-being of our people with varying degrees of apprehension. Each looks to the new woman as the one best fitted to take the case in hand.

From various recent publications the following quotations are gathered: "Hoodlums that glory in being 'toughs' are thicker on American soil than on any other spot on the crust of the planet." "Masturbation is well-nigh universal" among our boys and youth. Syphilis has spread until "the question is not who has but who has not" the disease. "Fifteen per cent. of all diseases of women, exclusive of prostitutes, are caused by gonorrhea and its sequelæ." "A moral nature so finely developed that it will not permit its owner to enter into the marriage state, bearing the seeds of possible direful results to wife and family, is not common among men." "Not one woman in twenty escapes solicitation" for her ruin. "Ninety out of every one hundred men cohabit with women before marriage." "City children soak and blacken soul and sense in city slime," and "human nature is no better out among the farms." "The country school grounds often prove slippery places for young feet." "Crime and hunger casts our maidens by the thousands on the streets." "If it is all true,

then American society is suspended over an abyss and it will require the engineering skill of the best elements in church and State to keep us from falling into depths of distress." If any part of it is true, then the disease is in the system and "the treatment must be constitutional and radical and preventive."

The new woman does not care to pose as a reformer, much less as a martyr, but her pledge demands of her that she endeavor to do the "whatsoever" and to follow her leader, the Healer of Gennesaret, even to the cross, but does not every manly instinct cry out against sending our virgin daughters to face Sodom and Gomorrah? God pity that people whose women stand alone against the fiercest, the most implacable, as well as the most insidious foe that ever assailed home and country. Until men and women together, with the little child in the midst and the stranger within our gates as well "hear and learn and observe to do all the laws" of that only perfect sanitary code ever formulated, written in the books of Moses so plain that a wayfaring man, though a fool, *need not* err therein, written in the very substance of our normal being so that violation of them brings the penalty in weakness and pain. Until we teach them diligently, father, mother, priest and doctor, to our children from the time they "know not anything" the full counsels of the God who created their bodies, we are in danger.

The story of Onan and of Baal-peor; of Eli and David and of Herodias' daughter, are not without their parallels today. If we are ashamed of and forsake the words of life, life and health will forsake us as surely as they did Canna or Israel. When we read of a Pearl Bryan and think of the young girls unprotected by law after the age of legal consent from the wiles of the deceiver, who blights heart and soul as well as body, a crime tenfold more heinous than he commits who only destroys the body by violence. Does Jeremiah seem unmanly weeping for the slain of the daughters of his people? When we realize that from heredity, the seed of wild oats, or "the transmission of lust from unrestrained licentiousness in wedlock," little blistered feet that never walked are hastening to the grave; and infants of tender years in homes where we least expect it are children who are corrupters. What man worthy of the name will say hush! hush! to Isaiah's call: "Lift up thy voice like a trumpet and show my people their transgressions?"

When, in our practice, a young wife is fallen down at the door of her married home, fit subject for the surgeon's knife, what Christian physician but thinks of Benjamin destroyed, of Jabesh-Gilead smitten and forty thousand of Israel slain to right one woman's wrong? Not one husband's conscience, but our whole social system is at fault that our daughters, yes, and our sons, are not afforded the protection which was given the slaves from diseases more loathsome and persistent than smallpox and the plague.

"Is there no balm in Gilead? Is there no physician there? Why, then, is not the health of the daughter of my people recovered?"

W. O. E.

"Mirror Speech."

DENVER, COLO, Feb. 21, 1897.

To the Editor:—In the editorial comments of the issue of the JOURNAL for Dec. 19, 1896, page 1307, you have a paragraph on "Mirror Speech," quoted from the Bulletin of the *Progrès Médical*, November 28, you do not state where the little patient was trephined, whether on the left or right side of the head or over what portion of the hemisphere.

I have been engaged in working up speech defects of late and in one case, cyst of the brain, there was a transposition of the letters of words. The patient talked nearly normally, but writing was almost unintelligible from the transposition of the letters, but it was not "mirror speech." I will mail you a reprint of six cases of speech defect. The one that I refer to is the fourth case of the series.

I shall feel greatly obliged for any additional facts in Baudouin's cases. I am

Yours truly,

J. T. ESKRIDGE, M.D.

Cretins in America.

BALTIMORE, MD., March 5, 1897.

To the Editor:—Will you kindly allow me the use of your columns to ask for information on the subject of cretinism in America? I have been detailed by the Pediatric Society to take part in the discussion on *Internal Secretions* at the Congress of American Physicians and Surgeons in Washington, on May 5, and I am anxious to present the experience of American physicians on the use of the thyroid extract in the treatment of cretinism. I wish brief statements, 1, of the name, age and sex of the patients; 2, of the length of time the thyroid extract has been given, and with what results; 3, whether any case cured by treatment has been able subsequently to abandon the use of the extract; and I would also like to have photographs showing the effects of the treatment.

I shall give full credit to any of my colleagues for the information they may kindly furnish.

Very truly yours, WILLIAM OSLER, M.D.

1 W. Franklin Street.

P.S.—I have the details of the cases already published in this country, but shall be glad of any additional data as to the subsequent history.

Manufacturers in the Secular Press.

DULUTH, MINN, March 3, 1897.

To the Editor:—Permit me through your columns to call the attention of the regular profession throughout the United States to the fact that McKesson & Robbins of New York, hitherto considered by medical practitioners a reputable firm, have recently adopted the methods of the patent medicine vendors in putting upon the market a remedy for the cure of a certain disease and advertising the same to the general public through the secular press, as witness the following from the *Literary Digest* of Feb. 20, 1897.

This speaks for itself, and should not be allowed to pass unnoticed by the profession at large, to which this house is looking chiefly for support.

Yours truly, W. S. FULLERTON, M.D.

"TARTARLITHINE, the new cure for rheumatism. L. E. B., Clifton Hotel, Ottawa, Ill., writes: 'On Sunday, April 5, 1896, I was introduced to a citizen of this city who had not been able to raise his hand to his head for several weeks on account of rheumatism. He called on me one week later, and told me that after taking Tartarlithine for only one week, the improvement in him was truly phenomenal. In two weeks he was practically cured.' Pamphlet on the cure of Rheumatism by Tartarlithine sent free by McKesson & Robbins, Manufacturing Chemists, 95 Fulton Street, New York."

PUBLIC HEALTH.

Pay for New York Village Boards of Health.—Chapter 430 of the New York Laws of 1895 provides that the members of boards of health in incorporated villages shall be entitled to receive for the services rendered by them such fair and reasonable compensation as shall be fixed by the boards of trustees, which latter are empowered to appropriate annually a sum not exceeding $500 for such purpose. Under this law, the appellate division of the supreme court of New York holds, People v. Board of Trustees of Village of Haverstraw, Dec. 31, 1896, that a member of such a board of health, whose term of office did not begin until after the statute went into effect, is entitled to such fair and reasonable compensation as the board of trustees shall fix, notwithstanding there was no appropriation therefor

made before his services were rendered. It might well happen, says the court, that, in the work done by a village board of health, the value of the services could be judged much more accurately after they were performed than in advance of their rendition; and in such cases, it adds, that it can see no valid objection to paying for them by means of an express appropriation subsequently made. For non-action on the part of a board of trustees, in declining to fix a fair and reasonable compensation, it further holds that the appropriate remedy would seem to be a proceeding by mandamus.

On the Consumption of Tuberculous Meat.—It may be remarked that in Germany, to prevent the heavy loss that would attend the condemnation and withdrawal from the food supply of the flesh of animals affected with tuberculosis, it has been proposed to cook such flesh in apparatus attached to the public abbatoirs, by means of superheated steam and then allow it to be issued for consumption. Already there is at least one cooking apparatus in operation at Berlin, that of Dr. Rohrbeck, and in all probability there will soon be many more at work. Thorough cooking at a high temperature will no doubt render the consumption of such flesh quite safe and it will prove a boon to the poor, as it will be sold at a low price and require no further preparation, a matter of some moment when fuel is expensive.—London *Lancet*.

Violent Deaths in 1895.—The alarming increase in the number of murders and suicides in this country is shown from statistics recently collated as they relate to 1895 compared with preceding years: From these it appears that the number of murders (including homicide) in the United States attained last year the unprecedented figure of 10,500, as compared with 9,800 in 1894, 4,290 in 1890, and 1,808 in 1885. Hence, the increase of homicidal crime is of a most rapid and serious nature. The suicides in 1895 numbered 5,750, as compared with 4,912 in 1894, 2,040 in 1890, and 978 in 1885. The legal executions in 1895 were 132, being the same as in 1894, whereas in 1890 they were 102, and 108 in 1885. The "lynchings" or illegal executions were 171 in 1895, as compared with 194 in 1894, 127 in 1890, and 108 in 1885. Hence there was a decrease of 23 last year as compared with 1894. But both as regards legal and illegal executions in the United States there is an extraordinary difference between the ratio of increase in the two classes and the amazingly rapid development of murder of recent years. Thus, the combined legal and illegal executions for the 1,808 murders in the year 1885 were 289, or nearly as many as the combined number (303) for the 10,500 murders in 1895.—*Chicago Tribune*.

Austrian Commission to Investigate the Plague in India.—The Imperial Royal Academy of Sciences has employed a portion of the Treitl Fund in sending a commission, composed of Dr. Hermann Müller, Dr. Ghon, Dr. Albrecht and Dr. Pöch, to investigate the nature of the bubonic disease now prevailing in India. Dr. Müller is assistant to Professor Nothnagel and is one of the most distinguished of our young medical men. He was born in Gratz in 1860, took the M.D. degree in Vienna at the age of 24 years and was for three years assistant to Professor Ziemssen of Munich. He is at the head of the expedition and is specially charged with the observation of the clinical features of the disease; the postmortem examinations will be performed by Dr. Albrecht, who is at the present moment assistant to Professor Weichselbaum. The bacteriologic examinations are to be made by Dr. Ghon, who is also assistant to Professor Weichselbaum and is well known to the medical world by some publications on bacteriology. Dr. Pöch, attached to the clinic of Professor Neusser, is the junior member of the commission; he is a very able photographer and will assist his colleagues generally. The four medical men set out from Trieste on February 3 and will remain at Bombay for three or four months. On January 29 they were received by Baron Gautsch, Minister of Public Instruction, who complimented them upon their courage and wished them much success in their inquiries. The Treitl Fund is so called after the late Herr Treitl, a Vienna citizen, who bequeathed to the academy all his fortune, amounting to about $500,000.

The Sickness Rate in Germany.—If national health is national wealth, then individual wealth is the politically important unit of measure. This is emphasized in an interesting and "taking" way in the introduction to a handbook that is pubished by the Imperial Department of Health of the German Government. "The health of man is a precious possession. Its loss causes harm not only to the individual, but also to the community. The individual whose health is impaired suffers discomfort or pain, or both. He loses his ability to work or to earn a living and impairs his enjoyment of the pleasures of life. He must incur expense in order to regain his health, and anxiety and poverty are the results, both to himself and to his family. By the decrease of its productive labor the community suffers loss in its industries and incurs expense in the support of the sick; and when, as often happens, the sick man is attacked with an infectious disease, he becomes a danger to his neighbors. The extent of the loss arising from the impairment of health can be estimated from the returns of the workingmen's sick clubs of Germany. In 1891, out of a total membership of 6,500,000 more than 2,000,000 cases of illness occurred, each of which averaged seventeen days in duration. These clubs paid in medical expenses $22,000,000. Since it may be assumed that among the remaining 44,000,000 of the German population, 24,000,000 of whom are old enough to work, the cases of illness were as numerous and as long-continued as among the members of these clubs, the expense caused by sickness in Germany in 1891 is not placed too high at $120,000,000. The loss incurred by stoppage of wages is not included in this sum. The preservation and promotion of the health of mankind is the aim of hygiene. Among the tasks which it proposes are the prevention, limitation and removal of sickness and disease, and the preservation and prolongation of the ability to work and of man's life in general."

Researches Regarding the Rinderpest Bacillus and Antitoxin in India.—An Indian authority on the subject of rinderpest as it exists in the Bengal Presidency writes as follows: If the rinderpest in Africa is the same as that going under the name of rinderpest in India, then Professor Koch is going to search for a bacillus which Dr. Simpson, the well-known medical officer of health of Calcutta, has had in his possession for more than two years. The organism is a sporeless motile bacillus which can grow both with and without air, but gradually becomes attenuated by repeated growths in air. Dr. Simpson saw Professor Koch in Berlin last May and communicated to him the nature of his discovery. He was unable to show his cultures, having left them in London with Professor Klein a few weeks before. Since his return to Calcutta, Dr. Simpson has continued his inoculation experiments and has injected in larger and larger doses cultures of the diplo-bacterium into horses and cows, and has now reached over one hundred days. In the horse, troublesome abscesses were produced which led to emaciation, but the cow is not subject to abscesses, and Dr. Simpson is now inoculating cultures of the microörganism and toxins as well. The toxins produce very large swellings and have raised the temperature considerably, but he is able to give doses of cultures and toxins which would kill five animals without more than a temporary rise in temperature, and he hopes in the course of another month to have ready a supply of antitoxin which will possess a bactericidal power as well. Some regret is felt that application was made to a foreign specialist, even one so peculiarly competent as Dr. Koch; and that Dr. Simpson, who has been studying the subject, should not have had a chance of carrying on the work, which is of vital importance. There are no

epidemics of the kind in Calcutta, and hence opportunities are wanting there. Much interest was shown by eminent bacteriologists in England during Dr. Simpson's late visit here.—*British Medical Journal*, December 26.

Typhoid Fever at Paterson, N. J.—A Paterson paper has stated that twelve cases of typhoid fever have been known to occur along the line of the Passaic River above the intake of the water supply, and in the absence of better evidence these cases may be taken as the starting point of Paterson's epidemic of fever. Between September and the middle of December there had been reported 155 cases, while in the corresponding period of 1895 the number had not exceeded 57. As all the evidence pointed to the water supply as the agent of infection, Dr. Leal made a thorough inquiry, in order that the extent and the source of the pollution might be ascertained. He says: "I caused chemic and bacteriologic examination of the waters of the river to be made, and investigated all known or suspected cases of typhoid in the drainage area of the Passaic above our intake. The examinations showed the river to be free from pollution and to be possessed of the normal amount of bacterial life at a certain point. Below that point and down to the intake, evidences of sewage pollution were found and the bacterial life was enormously increased. The common colon bacilli were found and also colonies of what are believed to be the bacilli of typhoid. The investigation into the cases and suspected cases along the river disclosed what I believe was a case of typhoid at the point where the river first showed the evidence of pollution. The drainage from the home of the patient was directly into the river. If the patient's disease was typhoid, it would scientifically account for 98 per cent. of our cases of the disease, and that it was typhoid, a chain of circumstantial evidence unerringly indicates." This prevalence adds another to the long list of typhoid epidemics caused by the infection of public water supplies. In many instances the infection was derived from only one case of the disease. It is plain enough that the people of Paterson will be exposed to typhoid infection proceeding from cases of the fever in the drainage area just above the intake of the water works until the city shall have obtained and exercised the power to guard the sources of its supply or shall have purified by filtration the water received from the river. As it will not be an easy matter either to procure the needed power or to exercise it effectively, the municipal authorities should consider the expediency of resorting to filtration.

Public Water Supplies of Illinois.—The following memorial and bill has been sent to the members of the Illinois Legislature. The accompanying draft of a bill for the protection of public water supplies of the State, and the regulation of the disposal of sewage has been prepared by Joint Committee:

Dr. John A. Vincent, Springfield; Dr. Julius Kohl, Belleville; Dr. J. W. Scott, Springfield, representing the State Board of Health. Prof. Arthur N. Talbot, C.E., Champlain, Ill.; Prof. A. W. Palmer, representing the University of Illinois. Dr. O. B. Will, Peoria, Ill.; Dr. L. L. Gregory, 514 Evanston Avenue, Chicago, Ill., representing the Illinois State Medical Society. Mr. John Ericson, C.E., City Hall, Chicago, Ill.; Col. R. O. S. Burge, 6318 Stony Island Avenue, Chicago, Ill., representing the Western Society of Engineers. Mr. D. W. Mead, C.E., Rockford, Ill.; Mr. John W. Alvord, C.E., 1140 Rookery, Chicago, Ill.; Mr. Jacob A. Harmon, C.E., Peoria, Ill. (Arcade Building), representing the Illinois Society of Engineers and Surveyors. Dr. J. R. Dunham, Wenona, Ill.; Dr. H. M. Bascom, Ottowa, Ill., representing the Illinois Homeopathic Medical Association. Dr. G. R. Shafer, Morton, Ill.; Dr. Henry Wolgemuth, Springfield, Ill., representing the Illinois State Eclectic Medical Society. The appointment of this committee and the drafting by them of the bill grew out of a discussion by the Illinois Society of Engineers and Surveyors at its last annual meeting at Peoria. It is not necessary to enter extensively into a discussion of the benefits which would result from the enactment of this law. The results of such supervision and control in other States where such laws are in force, and a glance at a few statistics giving the results following the improvement of water supplies and sewerage in the reduction of the mortality of typhoid fever alone, which is preëminently a disease produced by impure water and bad sewerage, will suffice. Twelve leading cities of Europe show deaths from typhoid fever before the introduction of a proper water supply and sewerage to have been 10.7 among 10,000 of population per annum; after such introduction, 3.5 per annum. Fifty European and American cities having no sewerage and water supply systems, or insufficient ones, show about 10 deaths per 10,000 living, while an equal number in cities having proper water supplies and sewerage systems, the number is but 2.4 per annum. The following table shows the average typhoid death rate for a period of five years, ending May, 1893, for six towns on the Merrimac River in Massachusetts: Manchester 2.95; Nashua 4.77; Lowell 10.66; Lawrence 12.72; Haverhill 3.63; Newberryport 3.60. Of these towns, Lowell and Lawrence use polluted river water and the others have pure supplies. During 1893 a filter plant was added to the Lawrence system, and in 1894 the rate was reduced to 5.00, and in 1895 to 3.07 per annum of 10,000 living. What is true of typhoid fever is true of other filth diseases. It will doubtless be conceded that each municipality within this State when confronted with the necessity of providing a water supply or system of sewerage for its people is desirous of having the problem solved in a proper and scientific manner, and if an authority on this subject were known, it would gladly seek advice therefrom. The State Board of Health being charged with the care of the health of the citizens of the State, is such an authority as should be sought in matters of this character, and it is believed by the committee which has prepared the accompanying bill, that its provisions will enable the State Board of Health to meet the exacting requirements of such a responsibility. In the furtherance of the cause of this bill, the aid is earnestly requested of every citizen of this State, who believes that its passage will in a measure accomplish the purposes desired. If it be brought to the attention of each member of the State Legislature, and its purposes and benefits briefly and clearly set forth, it would seem as though it should be unanimously passed at a very early date.

A BILL

For an Act imposing additional duties and conferring additional authority upon the State Board of Health, with reference to public water supplies and sewerage of this State.

SECTION 1.—Be it enacted by the people of the State of Illinois, represented in the General Assembly: That in order to materially promote the public health, the State Board of Health of the State of Illinois be and is hereby charged with the sanitary supervision and control of all sources of public water supply, both surface and underground, within the resources of this State, which are or may be used for domestic and culinary purposes; that said Board be and is hereby charged with the supervision and control of the methods and means of collection and disposal of sewage within this State; that the said Board be and is hereby authorized and directed to make such rules and regulations as may be necessary to enforce the provisions of this act.

SEC. 2.—No system of sewerage, or system of public water supply, shall be constructed, extended or changed by any city, village or town in this State, or by any corporation, person or persons, until the plans and specifications for such system of sewerage or system of public water supply or proposed extension or change thereof shall have been submitted to the State Board of Health and received its approval. In addition to the approval of the plans for the development of public water supplies, the State Board of Health shall examine and cause to be made, analyses of the waters from the source or sources of supply, and determine their fitness for domestic and culinary purposes before such waters shall be delivered to customers. A certificate of the finding of the Board shall be issued without delay to the municipality, corporation, person or persons, submitting plans or water for approval, which certificate shall be signed by the President of the Board and attested by the Secretary with the seal of the Board.

SEC. 3.—All analyses of water or sewage required by the State Board of Health under the provisions of this act shall be made at the laboratories of the State University at Urbana by the proper officer or officers in charge of such laboratories, and the sworn statement of the result of such analyses, under the seal of the University, shall be competent evidence in the courts and shall be prima facie evidence of the matters therein stated, so far as relating to the existing conditions of the water or sewage analyzed.

SEC. 4.—Every general rule or regulation made by the State Board of Health under this act shall be published at least once each week for three consecutive weeks in at least one newspaper in each county of this State. All special rules, regulations and instructions for any particular city or village shall be published once in a newspaper of such city or village to be affected thereby, or if no newspaper is published therein, then by posting copies in such city or village to be affected thereby.

SEC. 5. The affidavit of the printer, publisher, or proprieter of the newspaper in which such rules, regulations or instructions are published, and the affidavit of the person posting the same, with the rules and regulations or conditions so published or posted, shall be filed in the County Clerk's office of such county, and with the State Board of Health. A copy of such affidavit, rule, regulation or instruction, certified by the county clerk, or Secretary of the State Board of Health, in whose office the same are filed, shall be conclusive evidence of such publication or posting, and of all the material facts therein stated in all courts and places.

SEC. 6. The State Board of Health is hereby authorized to make such inspection as may be necessary to determine whether its rules, regulations and instructions under this act are complied with; and if any such inspection discloses any violation of any such rule or regulation, the Secretary of the said Board shall cause a copy of the rule, regulation

or instruction to be served upon the person or persons, corporation or municipality, violating the same, with notice of such violation, and if such person or persons, corporation or municipality, shall fail to comply with such rule, regulation or instruction, or fail to show cause satisfactory to the State Board of Health why the same should not be enforced within ten days after the service of such notice, the State Board of Health may maintain an action before any justice of the peace of the county in which such violation occurs, or in any court of record of the said county, against such person or persons, corporation or municipality for the recovery of the penalties hereinafter prescribed for such violation, and may also, upon a proper showing, have an injunction, without bond, restraining such person or persons, corporation or municipality, from the continued violation of such rules, regulations or conditions.

SEC. 7.—The penalties for the violation of or non-compliance with the provisions of this act, or the rules and regulations of the State Board of Health which may be promulgated under this act, shall not be less than fifty dollars nor more than two hundred dollars for each and every violation and non-compliance; an additional penalty of ten dollars per day shall be imposed for each day that said violation of or non-compliance with shall be continued after conviction thereof; said penalties to be recovered as provided in Section 6.

SEC. 8.—The State Board of Health shall, at its annual meeting each year, elect a consulting sanitary engineer, whose term of office shall be for one year and who shall serve until his successor shall be elected and qualified. It shall be the duty of said engineer, under the direction of said Board, to examine all plans for the construction of proposed systems of sewerage, public water supply, and extensions or changes thereof, to perform such duties in the line of his profession as may be assigned to him by the Board; to make report to the secretary before the regular quarterly meeting of the Board of all inspections made by him; for which services he shall be paid a sum not to exceed . . . dollars per annum, to be paid out of the regular appropriations of the Board. PROVIDED, That as soon as may be expedient after this act shall become a law the State Board of Health shall assemble and elect its sanitary engineer, who shall serve until the next annual meeting and until his successor shall be elected and qualified.

SEC. 9.—The State Board of Health shall annually, at the stated time for other reports of said Board, report to the Governor of the State, all of its acts with reference to the provisions of this act, and such reports shall be published the same as other public documents.

SEC. 10.—The provisions of this act shall not apply to any city of the first class in this State.

SEC. 11.—Since an emergency exists in that various municipalities throughout the State may desire the approval of plans so that work may be carried out during the summer and autumn of 1897, this act shall be in effect from and after its passage and approval.

BOOK NOTICES.

The Year-book of Treatment for 1897. A Critical Review for Practitioners of Medicine and Surgery. Crown octavo, pp. 448. Cloth, $1.50. Philadelphia and New York: Lea Brothers & Co. 1897.

This is the work of twenty-six well-known British authorities, and the thirteenth year of the annual. That it has come to stay is self-evident, as it is one of the most useful of the various digests. The work covers the whole domain of practical medicine. Its very moderate price puts it within the reach of all.

Principles or Guides for a better Selection or Classification of Consumptives Amenable to High Altitude Treatment, and to the Selection of Patients who may be more Successfully Treated in the Environment to which they were Accustomed Previous to their Illness. By EDGAR A. TUSSEY, M.D. Philadelphia: P. Blakiston, Son & Co. 1896. Price $1.50.

In a book of 141 pages the author has given us a work of immense practical value. The very questions that arise in the mind of the general practitioner with regard to the choice of climate for his consumptive patients, will be found here answered without bias. The work, however, does not stop there, for the author takes occasion to scourge the users of alcohol, and to point out the insidious sapping of the vital forces by the use of alcohol even in limited quantities.

A Pictorial Atlas of Skin Diseases and Syphilitic Affections in Photolithochromes from Models in the Museum of the Saint Louis Hospital, Paris, with explanatory woodcuts and text by Ernest Besnier, A. Fournier, Tenneson, Hallopeau, Du Castel, Henri Feulard and L. Jacquet. Edited and annotated by J. J. PRINGLE. Part VII. London: The Rebman Publishing Co.; Philadelphia: W. B. Saunders. 1897. Price $3 per part.

We have so often written in praise of this magnificent work, that it is needless to say more than that each number increases our admiration. The present fasciculus contains Plates XXV to XXVIII inclusive, with explanatory text. The number of pages has now reached 174. The contents are: Eruption from Potassium Bromid, Hypertrophic Papular Syphilides, Rupioid and Early Gangrenous Syphilides, Gangrenous Syphilides, 1, tubercle gangrenous syphilides; 2, gangrenous gumma.

The American Year-book of Medicine and Surgery. Edited by GEORGE M. GOULD, A.M., M.D., assisted by eminent American physicians and teachers. Profusely Illustrated. 8vo, cl., pp. 1258. Philadelphia: W. B. Saunders. 1897. For sale by subscription only, price $6.50.

This year-book is one of the best published in any language. The vast literature of the year has here been culled and condensed, and judicious criticisms written upon the topics included in the scope of the work. Those fortunate enough to have the last year's volume, will know better than any one else how to appreciate this one.

Dr. L. A. Duhring has been appointed to the department of dermatology, vice Dr. Hardaway, resigned. The editor-in-chief has not hesitated to pass his judgment on the value of most of the proposed discoveries and improvements noted in the volume, and in the main we see little to dissent from in them.

Hyde on the Skin. A Practical Treatise on Diseases of the Skin. For the use of Students and Practitioners. By J. NEVINS HYDE, A.M., M.D., Professor of Dermatology and Venereal Diseases in Rush Medical College, Chicago, and FRANK H. MONTGOMERY, M.D., Lecturer on Dermatology and Venereal Diseases, Rush Medical College, Chicago. New (fourth) edition. In one octavo volume of 815 pages, with 110 engravings and twelve full-page plates, four of which are colored. Cloth, $5.25; leather, $6.25. Philadelphia and New York: Lea Brothers & Co. 1897.

The exhaustion of the third edition of this work within so short a time after its publication, and the appearance of this fourth edition, afford gratifying evidence of the value of the work to the profession. This revision is a conscientious one. Old chapters have been rewritten, new ones added, and critical corrections have been made where necessary to bring the work to correspond in all respects to the recent progress in dermatology.

The enormous number of cases annually appearing at Professor Hyde's clinic, makes it possible for him to write from the standpoint of a clinician of unsurpassed opportunities for observation. That he has used his clinical opportunities to the best advantage is apparent from a perusal of the book.

ASSOCIATION NEWS.

The Journal Special Train will leave Chicago Sunday, May 30, over the Pennsylvania Line, direct to Philadelphia without change.

Railroad Rates.—The Committee of Arrangements had several meetings for arranging the work, of which I was not advised. When accidentally learning of it I asked Dr. Hare to keep me posted that I might be able to reply to questions, and since then I have been invited to all the meetings of the Committee. But already Dr. E. E. Montgomery had been assigned to the railroad work, and had arranged with them as to the rate. This was as early as last December. Of course I did not propose to put my request before the roads till the opening of the year as they always insist that it is too early to consider such work till the year comes in. From what I can learn Dr. M., has done all he could to obtain one fare. When on a previous occasion I put before the roads the fact that the G. A. R. and the Y. M. C. A., etc., can obtain one fare the excuse is that these are so much larger, etc. However, under the idea just observed in the JOURNAL that we should have more time before and after the meeting, I will reopen the matter personally and endeavor to get better terms. Please ask the profession throughout the country to bring any influence they may have to bear on the powers in the railroad pool. Also, ask the delegates and all who expect to be with us to give me notice as we are anxious to be fully provided for all. The wild idea is now that we shall have 3,000 registered, without taking thought of those who will accompany them as wives, etc.

W. B. ATKINSON, M.D., Secretary.

Intussusception in Children.—Dr. Edward Martin, 222 South 15th Street, Philadelphia, desires answers to the following questions for an ASSOCIATION paper in preparation: Intussusception in children under 12 years; seen by Dr.; in personal practice; in consultation; age of patients; cause of intussusception (polyp?); symptoms (tumor, passage of bloody mucus, tenesmus, vomiting, intense pain); treatment, medical with result, mechanical (injection of air, water, massage), result; period elapsing from first symptom to mechanical treatment. Operative (disinvagination through abdominal opening) result; resection, result; seat of invagination; amount of bowel resected; method of joining intestines; period elapsing from the first symptom to the time of operation; result of autopsies. Further details not covered by the above headings will be gladly received, such as recovery with passage of slough, etc.

SOCIETY NEWS.

Western Surgical and Gynecological Association.—The sixth annual session of the Western Surgical and Gynecological Association was held in the Senate chamber of the State House at Topeka, Kan., Dec. 28 and 29, 1896. It was one of the best meetings in the history of the Association, being largely attended, having a good program and interesting discussions. In welcoming the surgeons on behalf of Topeka Mayor Fellows said in part: "To welcome to Topeka honored members of the most progressive of all professions is indeed a pleasure. Five years ago a few prominent surgeons met in this city and started your organization. Today it embraces among its members the leading surgeons of the West. Great as has been the growth of your Association in members and influence, it is as nothing compared to the wonderful progress of the profession you so worthily represent. During the century that is nearing the end your profession has lifted the curtain and shown a greater display of wonders and mysteries than all others combined." On Monday night a buffet banquet was served at the Copeland Hotel, at which the following surgeons responded to toasts: M. B. Ward, M.D., Topeka, "The Future of the Western Surgical and Gynecological Association." Dr. Summers, Omaha, Neb., "The Medical Profession of the West." Rev. Dr. A. S. Embree, "The Clergy's Opinion of the Profession." Dr. Grant of Denver, "A Silver Thread Among the Gold." C. A. Fellows, "The City Health Regulations." Dr. W. S. Lindsay, "Specialism in Medicine." Dr. Eastman of Indiana, "Good Night." For the ensuing year the following officers were chosen: President, Dr. Joseph Eastman of Indianapolis, Ind.; first vice-president, Dr. D. S. Fairchild of Clinton, Iowa; second vice-president, Dr. B. B. Davis of Omaha, Neb.; secretary and treasurer, Dr. Herman E. Pearse of Kansas City, Mo.; executive board, Drs. L. Schooler of Des Moines, Iowa; M. B. Ward of Topeka, Kan.; T. J. Beattie of Kansas City, Mo.; C. Lester Hall of Kansas City, Mo., and J. P. Lord of Omaha, Neb. Dr. W. W. Grant of Denver was chosen chairman of committee on arrangements.

The New York Academy of Medicine; 1847 to 1897.—From 1847 to 1850 this budding institution was cradled over a carboniferous stratum, that is it had its first home over a coal yard. Then, for twenty years, it "boarded 'round" like the country schoolma'am, a part of the time in the University Building and part of the time at the Twenty-third Street School. In May, 1875, it for the first time had a home of its own on Thirty-first Street. This was a happy mark of progress and the Academy took on new life. This building was manifestly outgrown before a decade had passed, and the new abode on West Forty-third Street became a necessity. It was opened in 1891, representing an outlay of nearly $300,000. The Academy is free from debt, and can have all the funds it needs to keep its standard floating high. The latest proposition for adding to the usefulness of the institution is that made by the newly elected president, Dr. E. G. Janeway, who desires to see the board of governors establish a laboratory for pathologic research for the benefit of the members, after the example of the Royal Colleges of London.

Academy of Medicine of Cincinnati.—At the annual meeting of the Academy of Medicine of Cincinnati held March 1 the following officers were elected for the ensuing year: W. E. Kiely, president; J. C. Oliver, first vice-president; Ellen F. McCarthy, second vice-president; S. E. Allen, treasurer; W. E. Schenck, secretary; M. A. Tate, financial secretary; A. G. Drury, corresponding secretary; A. I. Carson, librarian; N. P. Dandridge, J. A. Murphy, J. T. Whittaker, trustees.

American Pediatric Society.—The ninth annual meeting will be held at Washington, May 4, 5 and 6, 1897. A session is to be devoted to the demonstration of apparatus and pathologic specimens. It is requested that announcements of such subjects be forwarded as early as possible. In order to collect papers on kindred subjects into the same session, the titles of papers are also requested at an early date. Samuel S. Adams, M.D., president. William P. Northrup, M.D., chairman of Council, 57 East Seventy-ninth Street, New York.

Kings County Medical Association, at Brooklyn.—The following officers for 1897 were elected February 9: President, J. C. Bierwirth; vice-president, L. A. W. Alleman; secretaries, F. C. Raynor and J. Scott Wood; treasurer, E. H. Squibb; member of executive committee to 1901, J. D. Rushmore; other members of committee, R. M. Wyckoff, T. M. Rochester and Jonathan Wright.

The Polish Medical Society of Chicago will hold hereafter their regular meeting every second Wednesday of each month at the Tremont House (Parlor A), cor. Lake and Dearborn Streets, 3 to 6 P.M.

Medical Association of the District of Columbia.—The following recommendations were adopted Feb. 16, 1897:

1. That any institution for medical charity shall require from every applicant for relief in a hospital or dispensary, a written certificate, to be obtained as hereinafter provided. Emergency cases are to be excepted from the operation of this rule.

2. That such certificates be obtained from physicians to the poor, the Board of Associated Charities and any registered physician.

3. That cases of sick and injured persons found upon the streets, in the stations or elsewhere, who require immediate treatment, shall be carried to the emergency hospital, or the nearest hospital having an emergency service, or to their homes, if so directed by the patient or his friends.

4. That emergency patients shall not be detained longer in such institutions than the necessity of the case imperatively demands, but shall be discharged from the service and sent to their homes, or to some public hospital as the patient may elect.

5. That members of this Association shall be entitled to the privilege of attending private patients occupying private rooms in any of the public hospitals of this city.

6. That in future the members of the medical staff of hospitals, when attending medical or surgical cases in private pay rooms, shall insist upon proper payment for their services, except in the case of such patients who are clearly unable to pay for the same.

7. That whenever a medical staff, or a majority thereof, of a hospital or dispensary resigns, and when after due hearing, this Association finds that the resignations were for just and sufficient cause, it shall be forbidden for any member of this Association to accept a position on the staff of said hospital or dispensary.

8. Whenever one or more members of the medical staff of a hospital or dispensary are dismissed, and when, after due investigation, this Association finds that such dismissal was without just and sufficient cause, it shall be forbidden for any member of this Association to fill the vacancy created thereby.

9. That complaints made under Rules 7 and 8 shall be made in writing to the Standing Committee, which, after due consideration, shall report its findings to the Association.

W. P. CARR, M.D., President.
J. R. WELLINGTON, M.D., Secretary.

NECROLOGY.

SURGEON-MAJOR ROBERT MANSER, who is the first professional victim to the plague in Bombay, joined Guy's Hospital about 1867, when he was 18 years of age. Six years later he qualified, becoming M. R. C. S., and later on, in 1877, passed into the Indian Medical Service, being attached to the Bombay army. In 1879 he first saw field service, and later on took part in the defence of Kandahar; subsequently working in the Bolan and Khyber Passes after Lord Robert's brilliant success. Going down to Bombay, he was soon appointed one of the physicians to the Jamsetjee Jeejeebhai Hospital, and a professor in the Grant College Medical School. In 1889 he became Professor of Medicine there, and in that same year took the M.D. at Durham, passed the M.R.C.P., and became a surgeon-major. In addition, he soon acquired a reputation as a consultant, and became a most popular physician among the European community of Bombay. In private Dr. Manser was one of the most unassuming of men, as well as one of the most careful clinical workers that the Indian Medical Service has seen. When the plague broke out in August, in Bombay, Dr. Manser was at once appointed President of the Plague Investigation Committee—in its work he has been unwearied. He took the plague January, and died on the 6th, cut off in mid-career, and with a brain all active; a death that he would have been the last to rebel against, rather taking it as part of a day's work, an honor to himself and to a service that has no need to produce vouchers for its nobility.

WILLIAM S. PRESTON, M.D., of Patchogue, N. Y., died at his home February 16. He was born at Ashford, Conn., Jan 15, 1810. He was a licentiate of the Massachusetts Medical Society in 1835. In October, 1837, he went to Patchogue to practcine, and during his time was one of the most prominent practitioners of Suffolk County. He was also prominently identified with the affairs of this county and village. Being an ardent politician, his friends sent him to the assembly, where he served one term and made an excellent record. For several years he was School Commissioner. He was an officer in the Suffolk County Medical Society, and was always interested in medico-educational improvements. In 1871 he was one of the organizers of the Patchogue union free school, being the first president of the Board of Education. He leaves three sons and one daughter. Dr. E. Forest Preston of Amityville is his third son.

ROBERT TODD REYNOLDS, M.D., died in Chicago, Ill., February 28, in his 86th year. He was the oldest living graduate of the McGill University and retired from practice in 1891 after fifty-five years of active participation in all its responsibilities. A widow and four children are his survivors. Dr. Reynolds was the only son of Commissary-General Robert Reynolds of the British Army, who was with the 34th Infantry at Fort Madden in 1837. Dr. Reynold's mother was a daughter of Commodore Bouchette, of the British Navy. Her first husband was Peter McGill, founder of the University.

OTTO L. DUSSELDORF, M.D., of Brooklyn, died on the 5th inst., aged 68 years, at the home of his son, Dr. Louis M. Dusseldorf. The doctor was born in Germany, but early came to the United States, spending the greater part of a half century in medical practice in New York. His fatal illness was an attack of acute lobar pneumonia.

HENRY S. GROSS, M.D., University of Pennsylvania Medical Department 1862, died in Philadelphia February 21, aged 57 years. During the war he was an assistant surgeon of the 26th regiment Pennsylvania infantry and served until Oct. 17, 1863. His regiment participated in the battles of Bull Run and Gettysburg during his official term.

WILLIAM R. LITTLE, M.D., of Bloomsbury, N. J., coroner of Hunterdon County, N. J., died in Phillipsburg, N. J., February 13, aged 47 years. He was a graduate of the University of Pennsylvania Medical Department in 1878.

WILLIAM B. HENDERSON, M.D., one of the oldest physicians of Dauphin County, Pa., died at Steelton, Pa., February 22. He served as assistant surgeon of the 6th Pennsylvania Cavalry and served until March 27, 1865.

MICHAEL W. A. WUELFINCH, M.D., University of Amsterdam, Holland, 1876, a surgeon in the Dutch army before he came to Reading, Pa., in 1880, died there February 17, aged 51 years.

JOHN C. LEWIS, M.D., University of Buffalo, 1874, died of pneumonia February 6, aged 48 years. He was a practitioner of Panama, N. Y., and a member of Chatauqua County Medical Society.

JOHN C. CLAUDY, M.D., Bellevue Hospital Medical College, 1865, died at his residence in Newville, Pa., February 20, aged 55 years. He was an acting assistant surgeon U. S. A., during 1865.

JOHN KIRBY, M.D., University of Pennsylvania 1852, for twenty-one years connected with the State Hospital for the Insane at Trenton, N. J., died February 27, aged 71 years.

HENRY KENT HUNTINGTON, M.D., N. Y. University Medical College 1871, of New Rochelle, died February 28, aged 53 years.

ERNST ILGEN, M.D., Munich, 1836, died at his residence in Brooklyn, N. Y., March 4, in his 83d year.

MISCELLANY.

Dispensary in North Carolina.—Raleigh is to have the first free dispensary in the State. It will be opened at an early date in connection with the school of medicine of Shaw University. It will furnish free advice and medicine to the needy and deserving colored people.

Unqualified Midwives in New York.—A coroner's jury in New York City, recently had before it the case of a young woman whose death had taken place after treatment by a midwife who had a license of the city health authorities but had never been examined as to her qualifications. This jury, in its verdict, passed a vote of censure as to the granting of *pro forma* credentials.

Jefferson Medical College.—At a recent meeting of the Board of Trustees of the Jefferson Medical College, Philadelphia, Dr. J. Chalmers DaCosta was elected Clinical Professor of Surgery. Dr. DaCosta has been connected with the College for many years, and has recently been Demonstrator of Surgery and Chief of the out-patients department. The new appointment is made in recognition of his long service and valuable contributions to surgical literature.

Error in too Much Evidence.—Upon the trial of an indictment that charged that the defendant, knowingly and unlawfully, and without license, prescribed medicine for a certain person named, the supreme court of New Jersey holds, in Meyer v. State, Nov. 20, 1896, that evidence that he had prescribed for other persons was illegal, its only effect being to show that he habitually did those things for the doing of which in a particular instance he had been indicted. Because the State, in this case, after proving the circumstances upon which it relied to establish the fact that the defendant had prescribed for the person alleged, proceeded to prove a number of instances in which he had prescribed for sundry other people, not mentioned in the indictment, the court reverses the conviction had.

New Shoes as a Factor in Accident Insurance.—John Fogarty of the firm of Winston Bros., contractors of Minneapolis, Minn., was in charge of the work of grading a roadbed on a branch of the Great Northern Railroad, and while walking from one flat car to another stepped on the iron apron, slipped and fell between the cars, the wheels passing over both legs a little below

the hips, the injury resulting in his death in a few hours. Mr. Fogarty stated after he was hurt that his new shoes were the cause of his accident; they were awkward and slippery. He claimed that if he had had on his old shoes it never would have happened. His wife was paid the $5,000 for which he was insured. This is the second claim paid within a twelvemonth where the cause of the accident can be attributed to new shoes, the other one being that of Paul Flesher of Elkhorn, W. Va., who, in attempting to climb to the summit of Pinnacle Rock, slipped, lost his footing and fell over a precipice.—*Bulletin of the Fidelity Company*, January.

Among the Medical Colleges of New York City.—Despite the efforts of a portion of the New York medical men, the policy of consolidated interests goes on. The fruition of the higher medical education is seemingly at hand for the benefit of the public at least, if not for the amelioration of the profession at large. Yet many think that the standard can not be too high nor the emoluments too meager. The trustees of the University of the City of New York have formally accepted the deed of the Loomis Laboratory from the trustees of the University Medical College. Hereafter the trustees of the university will take charge of the Medical College, assuming all financial responsibility. The Medical College's endowment of $100,000 and its property worth $300,000 more pass into possession of the university. Also the Bellevue Medical College have secured 100 feet on First avenue and 150 feet on East Twenty-sixth Street, adjoining the Carnegie Laboratory, which belongs to the college. Before the fire the Charities Commissioners were anxious to secure the ground on which the original building stood for hospital purposes. The work of erection will begin at once as it is intended to have the new structure ready before September begins. Meanwhile the Commissioners are busy with new plans and devices to meet the constant increasing demands upon their resources.

John Wesley's "Primitive Physick."—Andrew Mellick, Jr., in his "Story of an Old Farm," thus writes: "In New Jersey, up to the close of the French and Indian Wars, the main reliance of the people for medical attendance was upon the pastors of the churches. It was the custom of those who came from the old country to have taken a course of medical study as a preparation for their duties in the new world. The native ministers also, even up to the close of the century, on being educated studied both professions, and often not content with two, mastered so much of the law as would enable them to draw wills, conveyances and other legal instruments. John Wesley, the founder of Methodism, not only, like many other persons, prescribed and supplied medicine, but published a book called 'Primitive Physick,' which went through thirty editions. The ignorance of the times and the extraordinary remedies in use can be best exemplified by quoting a few prescriptions contained in this precious medical volume. For a violent bleeding of the nose a piece of white paper was recommended to be placed under the tongue. Treatment for cancer in the breast was to swallow in a pint of warm ale an infusion distilled from warts taken from a horse's leg; goose dung was also to be applied externally. Consumptives were directed to breathe for fifteen minutes each morning in a hole cut in fresh turf. The sovereign remedy for apoplexy was a pint of salted water; for cuts, poultices of toasted cheese; for cold in the head, orange peel thrust up the nostrils and so on *ad nauseam*."

A Case of Congenital Umbilical Hernia.—McCosh (*New York Medical Journal*, Feb. 20, 1897, p. 248) has reported the case of a male child, born at term of healthy and well-formed parents, which presented at birth a tumor the size of a large orange in the situation of the umbilicus. There was neither constipation nor vomiting. The tumor was roundish in form, about three and a half inches in diameter, projecting two and a half inches above the level of the abdominal wall; its surface was dark purplish in color. The external covering of the mass consisted not of skin, but of the membranes of the umbilical cord, through which the liver and the intestines could be indistinctly seen, falling and rising with inspiration and expiration. Manipulation of the tumor caused no discomfort and it was partly reducible. The temperature was slightly elevated, the pulse and respiration accelerated. Operation was advised and undertaken on the sixth day. The surface of the hernial mass had been converted into a foul, sloughing membrane, which was detached with forceps, exposing to view the liver and the transverse colon. The remainder of the membrane was removed by an incision around the base of the tumor, the liver and the intestines being held back by hot gauze pads. That portion of the liver which was contained in the sac was covered by a tenacious, partially sloughing exudate, which was scraped off with considerable difficulty. When expulsive efforts were made by the child, about one-third of the liver protruded through the gap in the abdominal wall. Approximation of the margins of the wound, after replacement of the viscera, was rather difficult on account of the excessive tension. A strip of rubber tissue was introduced into the abdominal cavity for drainage. The operation was followed by only moderate shock, but on the eighth day the pulse began to fail, cyanosis set in and death ensued.

Salivary Infection.—The *American Therapist* has gone a little outside of its *métier* to discuss the subjects of salivary infection and the sanitation of kissing. The writer pokes fun at the health official out in Indiana who has undertaken to legislate against the time-honored osculatory custom. While boards of health are proverbially lacking in those sentimental attributes which go toward making "life worth living," it has never been supposed that sanitary restriction would go so far as to heartlessly place the seal of official disapproval upon the soul-inspiring practice of labial juxtaposition between the party of the first part—the sighing swain—and the reciprocatory party of the second part—the fair damsel. The demands of prophylactic science are indeed inexorable if modern sweethearts are to be debarred from following the example of the lovers of all generations, even from the period of our common Edenic ancestors down to the present time. It is always easy to pull down and destroy, but what, if any, equally innocent and soul-satisfying substitute for this delightful pastime does this particular iconoclastic sanitary solon propose? Nothing, absolutely nothing! To be sure, in his scientific complaisance he implies that the demands of modern prophylaxis can be attained by bathing the ruby lips of fair femininity with some non-irritating and innocuous antiseptic, and rinsing the bacteria-breeding teeth of the masculine donor (or recipient as the case may be) with some equally potent germicide.

The Medico-Legal Value of Antivenin in India.—An interesting annotation in the London *Lancet*, January 23, states that Professor Hankin, director of the bacteriologic laboratory at Agra, recently had submitted to him cloths which had been removed from the intestines of some cows which had died apparently from some acute poisoning. Chemical analysis being impracticable, Professor Hankin macerated the cloths and concentrated the solution obtained. Part of this was inoculated under the skin of a rabbit, which died in less than an hour with every symptom of poisoning by serpent venom. The rest of the fluid obtained from the cloths was then mixed with a small quantity of Calmette's "serum antivenimeux" and injected into a second rabbit, which showed no symptoms whatever. If this observation proves to be corroborated by further trials, the knowledge that poisoning by serpent venom can be detected by scientific methods may check the use of this agent in India, where it appears to be frequently employed to poison animals. Another agent frequently employed for this purpose is abrin, the albuminoid substance contained in jequir-

ity seeds. A serum antitoxic to abrin has been prepared by Dr. Calmette, of the Pasteur Institute at Lille, whose researches on serpent venom are so well known, and it is possible that this also may be of use in finding the exact poison that has been employed and in bringing home crime to guilty parties. It is an interesting example of the unlooked-for practical results which often spring from purely scientific laboratory experiments. The whole anilin industry, for instance, arose from the incidental discovery of one of the anilin colors by Dr. W. H. Perkin, when carrying out a patient laboratory research in the unsuccessful endeavor to prepare quinin synthetically.

Graduates of Rutland's Mill.—Fred Rutland, president of the "Wisconsin Eclectic College," was arrested at No. 1001 Congress street February 24, on a warrant issued by Commissioner Humphrey, charging him with using the mails for fraudulent purposes. He was held in bonds of $5,000 for a hearing. Rutland's "college" is operated, he said, under a Wisconsin charter. His scheme has been carried on for some time. Diplomas were issued to all comers for a fee of from $35 to $50. Following is a partial list of the victims, with the dates of their "diplomas:"

ILLINOIS.

Effingham—Louis F. Beemer, Register block, Oct. 24, 1896.
Chicago—William Henry Bischoff, Dec. 30, 1896; Hyman Brook, 589 South Halsted street, Dec. 31, 1896; Kneed Lauritzen Boysen, 3565 Cottage Grove avenue, Jan. 30, 1897; John Alexander Conkey, 6600 Wentworth avenue, Jan. 27, 1897; Hiram Manter Dyer, Sept, 22, 1896; Frank Harry Escher, care Caradine, 167 Madison street, Feb. 3, 1897; Oscar Lawson, 240 Thirty-first street, May 6, 1896; Lindsay, 5955 Union avenue, Feb. 20, 1897; McCormick, April 3, 1896; Thomas J. McGrath, 29 Keith street, Feb. 23, 1897; William F. Nutt, 4204 Berkeley avenue, June 4, 1896; Joseph von Osinski, 928 George street, Lake View, Feb. 1, 1897; William Henry Saunders, 1208 Michigan avenue, Jan. 2, 1897; Mrs. Delia J. Wilcox, 4202 Berkeley avenue, June 8, 1896; Maud C. Williams, June 9, 1896.
New Burnside—John Newton Newberry, Feb. 26, 1897.
Harvel, Montgomery County—H. Nester De Moulin, Oct. 30, 1896.
Pekin—Francisco Josephus Masen, Jan. 18, 1896; Joseph Martin Martin, South Capitol street, Feb. 16, 1897.
Lewistown—John Quincy Moreley, Feb. 17, 1897.
Millersburg—M. F. Staunton, Oct. 7, 1896.
DeKalb—Benjamin Scarles, Oct. 7, 1896.
Wilmington—Benjamin Franklin Ward, Dec. 15, 1896.

INDIANA.

La Otto—Albert A. Bender, Aug. 12, 1896; Claude C. Chick, Aug. 12, 1896.
Owensberg—Lafayette Bridwell, Oct. 19, 1896.
Rays Crossing—G. T. Carney, Jan. 17, 1896.
South Bend—B. Webster Collins, Jan. 29, 1896.
Anderson—Dr. T. A. Dillion, 201 North Jackson street, Dec. 23, 1896; William H. Downham, Jan. 9, 1896.
Fort Wayne—Rudolph Deppeller, 32 South Columbia street, Jan. 23, 1897.
Alum Cave, Sullivan County—John W. Davis, Feb. 12, 1897.
Howell—James F. Freeman, July 18, 1896.
Monticello—Wesley H. Hull, Aug. 19, 1896.
Aetna—Frank Heath, Dec. 29, 1896.
Indianapolis—William F. Howe, 168 Bellefontaine street, Feb. 4, 1897; Henry Noel Karchner, 171 East Washington street, Dec. 15, 1896; William Herman Kluge, care Dr. J. W. Neff, 404 North W street, Feb. 6, 1897; Gustav Lender, care Dr. John W. Neff, 404 North W street, Feb. 2, 1897; Charles H. Pfuntner, 961½ North Illinois street, Feb. 1, 1897.
Lilly Dale—William Robert Howe, Feb. 6, 1897.
Elkhart—William C. Johnson, box 36, Aug. 5, 1896.
Petersburg—Davis F. LeMaster, Acme Pharmacy, Dec. 8, 1896.
Charles Matson, diploma by United States Express to Benton Harbor, May 2, 1896.
Vesdersburg—Charles Albert McNeill, Jan. 18, 1897.
Frankfort—James Osvorne, Oct. 1, 1896.
Coal Bluff—Thomas C. Rowe, July 9, 1896.
Blue Grass—John Richards, Aug. 27, 1896.
Garrett—John Julius Stoher, Oct. 30, 1896.

MICHIGAN.

Detroit—Edward Francis Andrews, per Van Husan, May 2, 1896; I. Barnard, Dec. 15, 1896; George H. Carpenter, July 22, 1896; Lewis M. Dickens, Dec. 14, 1896; Frederick H. Falkiner, 141 Howard Street, Jan. 30, 1896; John P. Guilott, 10 Lafayette Avenue, July 6, 1896; Louis Goldberg, per C., Aug. 22, 1896; Emil Huberman, care Mehmer, 141 Gratiot Avenue, July 28, 1896; William H. Hale, 6 or 60 Washington Street, Sept. 8, 1896; Prof. Elia Le Montais, 204 Howard Street, Sept. 24, 1896; William J. Lee, Helen E. Lee, 60 Washington Avenue, Sept. 3, 1896; James McAlindon, 230 East Woodbridge Street, Feb. 18, 1897; Rudolph Carl Opperman, 482 Congress Street, May 19, 1896; George O. Pratt, 720 Antonine Street, Aug. 18, 1896; Grandville W. Stevens, per Van Husen, June 8, 1896; Frank Schaeffer, pharmacist, 871 Chene Street, Oct. 3, 1896; Clemens E. Vertal, 867 Chene Street, June 25, 1896.
Kalamazoo—Myron Hermon Bell, 213 North Burdick Street, July 2, 1896.
West Olive—William Isadore Jacques Bruinsma, July 3, 1896.
Harrisburg, Ottawa County—Chester William Bunce, July 25, 1896.
Marlette—James W. Boucher, Aug. 5, 1896.
Benton Harbor—Frank E. Brady, Avery Block, Aug. 7, 1896; Julius C. Blume, care F. E. Brady, M.D., Jan. 29, 1896; Rose Olds, June 2, 1896; R. Burt Taber, Aug. 7, 1896.
Escanaba—Adelbert Brady, 702 Wells Avenue, Oct. 6, 1896.
Hancock—Henrick Verner Bergell, Dec. 5, 1896.
Yuma—Dr. Charles S. Baker, Dec. 10, 1896.
Grand Rapids—George Albert Brink, 407 Michigan Trust Building, Jan. 21, 1896; Leonard L. Conkey, June 15, 1896; Goodwin M. Field, Aug. 17, 1896; Simon Le Roy, 72 Ottawa Street, May 12, 1896; Coleman Nockolds, Butterworth and Indiana Avenue, June 30, 1896; Samuel M. Reed, per Carpenter, June 18, 1896.
Ann Arbor—Frederick Waller Brown, 48 South Engle Street, Feb. 20, 1897.
Nunica—Earl O. Cilley, July 2, 1896; James Cilley, July 2, 1896; Annie Gilette, July 23, 1896.
Lamont—Ed. G. Cooney, July 9, 1896; John Rice, July 9, 1896; Milron Lebhrus Squier, Aug. 14, 1896.
Algonac—August A. Geisler, Pharmacist, Aug. 28, 1896.
Grand Junction—Albert D. Hurlburt, July 13, 1896.
Fenwick, Montcalm County—Albert Frederick Haskin, Feb. 6, 1897.
Big Rapids—Miss Jenks, April 25, 1896.
Columbiaville—John H. Kellogg, pharmacist, June 8, 1896.
Sunfair, Hartley A. Meyers, care C. M. Snyder, Feb. 1, 1897.
Greenleaf—A. McLeod, Dec. 22, 1896.
Port Huron—John McDonald, Jan. 5, 1897.
Tonconning Bay—Monroe Porter, Oct. 23, 1896.
Gladstone—Albert H. Powell, Feb. 20, 1897.
St. Joseph—James C. Schuler, Aug. 22, 1896.
Jackson—G. Williams Van Vleck, A.M., M.D., 708 Detroit Street, Sept. 15, 1896.
Mandie—J. Van Vleck, 708 Detroit Street, Jackson, Sept. 15, 1896.
Mulliken—J. Whesley, May 14, 1896.
Salem Station, Washtenaw County—Albert L. Walker, Jan. 20, 1897.
Holland—Jantke J. Wetmore, 15 Eighth Street, Sept. 7, 1896.

WISCONSIN.

Waukesha—Martin Henry Janer, care Boehner Bros., Feb. 12, 1897.
Trade Lake—Filip Gustav Barck, Dec. 5, 1896.
Turtle Lake—Edgar W. Brown, Jan. 9, 1897.
Wausankee—Charles Wetherill Brewster, Feb. 19, 1897.
West Superior—Alexander A. Campbell, 714 Tower Avenue, June 17, 1896.
Stewbin—A. Earnest Dillman, May 21, 1896.
Westfield—Rolland Dickinson Earley, Dec. 22, 1896; May Rundlett, Dec. 22, 1896.
Milwaukee—Adelbert Freund, 453 Fifth Street, June 25, 1896; Herman Fleischer, per Beyer, Aug. 28, 1896; Martin W. F. Frederickson, care Beyer, Nov. 26, 1896; Fred A. Goedecke, 723 Wells Street, June 10, 1896; Konard Hahn, 309 Fourth Street, May 4, 1896; Emil Raben, National Avenue and First Street, June 30, 1896; Gustavus Schorse, per Beyer, Aug. 28, 1896; Helen H. St. John, 2220 Fond du Lac Avenue, Sept. 5, 1896.
Milton Junction—W. H. Gates, May 27, 1896.
New Lisbon—J. H. Hansen, May 20, 1896.
Underhill—George E. Hunt, per Poppe, June 4, 1896; Gustavus Jensen, per F. & A. Pope, June 4, 1896.
Poynette—Edgar E. Hinkson, June 19, 1896.
Cataract—Chester W. Johnson. May 16, 1896.
Grantsburg—Carl L. Johnson, Jan. 21, 1897.
Marinette—K. Kenyon, Arlington Hotel, Dec. 17, 1896.

Flintville—Frederick Sophie Kanute, Feb. 4, 1897.
Monticello—Rudolph Kleiner, Feb. 16, 1897.
Woodward—Harry S. Lester, May 18, 1896.
Modena—Ernest B. Leid, Nov. 6, 1896.
Milton Junction—Fred McAdams, May 19, 1896.
Cobb, Iowa County—Gustav Newman, Dec. 11, 1896.
Otsego, Columbus County—William A. Prase, May 18, 1896.
Waupaca—Fred Poppe, May 19, 1896; Alfred Poppe, same address and date.
Solden's Grove—Pere M. Randall, Dec. 11, 1896.
Wausau—Leonard Douglass Smith, 517 Franklin Street, Aug. 20, 1896.
Iron River—George E. Smith, Dec. 29, 1896.
Fond du Lac—Dr. Q. Towns, Jan. 5. 1897.
Eau Claire—Thomas E. Williams, Jan. 20, 1896.
Barron—Charles E. Waldron, Jan. 22, 1896.

Washington.

WASHINGTON OBSTETRICAL AND GYNECOLOGICAL SOCIETY.—At the 258th meeting of this Society, held on the 19th ultimo, Dr. F. S. Nash (late U. S. N.) read the paper of the evening, entitled, "Recovery Following Right Ovariotomy Notwithstanding Left Pyosalpinx. Abdominal Stitch hole Abscesses One Year Afterward." Dr. G. B. Harrison reported an interesting case of liver colic with passage of stone, and presented the specimen.

WHAT THE "EVENING STAR" SAYS ABOUT FREE MEDICAL TREATMENT.—There can be no reasonable objection to the plan of the local physicians as outlined in the report of the proceedings of the Medical Association to restrict the free treatment of patients at the hospitals to those who are genuinely unable to pay the usual fees. The scheme of reform is simple and just. It requires those asking for free treatment to present a card bearing a certificate of worthiness signed by the police authorities, the superintendent of the Associated Charities or a reputable physician. Under such a system there is little chance of hardship or suffering for lack of proper medical attention or on the other hand of the encouragement and development of that unfortunate tendency of many people to pauperize themselves whenever the opportunity offers.

THE GEORGETOWN COLLEGE HOSPITAL.—The plans for the hospital have been prepared by the architect and have been accepted. They have in view a structure which will cost about $40,000, and will contain from 100 to 150 beds. Of the amount needed $10,000 has already been pledged in private subscriptions, and the immediate outlook is for about $15,000. So soon as this amount is secured work will commence on the buildings, and it is hoped to begin work within a short time. The desire of the projectors is to have the institution completed and in operation by October next.

AN AMENDMENT TO THE APPROPRIATION BILL.—Senator Gallinger has added the following amendment to the appropriation bill (section on charities), provided, "that any legally licensed physician may attend private patients when they occupy pay rooms in any of the public hospitals in the District of Columbia."

CONTAGIOUS DISEASE AMBULANCE.—The health department has been provided with the newest design of ambulance for the use of contagious disease patients.

PROVIDENCE HOSPITAL'S OFFER.—Mr. McMillan, chairman of the Senate committee on the District of Columbia, has received a letter from Sister Beatrice, in charge of Providence Hospital, in which she offers to build and operate as a part of that institution a large ward for the treatment of contagious diseases, if a part of the proposed appropriation of $30,000 to provide wards at two hospitals be given to Providence. Sister Beatrice calls attention in her letter to the fact that Providence Hospital has already established a contagious ward and during the recent diphtheria epidemic the hospital had many cases. She says the small ward could be extended without great expense and she cites that the government would not be under annual expense for nurses, the sisters acting in that capacity without compensation. Providence Hospital, it should be remembered, a few years ago, came to the front and admitted, free of charge, cases of contagious disease which were refused admission to any of the other hospitals of the city. It is hoped that the offer will be accepted. Such a true charity should be encouraged and assisted.

MEDICAL SOCIETY.—At the meeting of the society held on the 24th ult. George M. Sternberg, surgeon-general U. S. Army, addressed the society on "Pathogenic Microörganisms," and illustrated his lecture by the use of lantern slides. He went over and illustrated almost the entire subject of bacteriology.

Detroit.

THE DETROIT MEDICAL AND LIBRARY ASSOCIATION at its regular meeting February 22, listened to an interesting paper by Dr. Maas, entitled "Malignant Tumors of the Mammæ."

THE WAYNE COUNTY MEDICAL SOCIETY adopted the following resolutions on the death of Dr. W. R. Scurr, an active member of the Society:

Dr. W. R. Scurr has been a resident of Detroit since 1885. He attended school at the Detroit College of Medicine and also at the Michigan College of Medicine and Surgery, graduating from the latter place in 1889. He held the professorial chair of nervous diseases in the latter college. Before his study of medicine he was an ordained minister, and while taking his course in the colleges, filled some well-known pulpits. As a medical man he showed his love for his calling. The interests of his patients were ever his interests, and this one thing is what led to his early, untimely death. He always showed professional courtesy to his brother practitioners. He was charitable, generous, kind-hearted, sympathetic, and with his genial nature was loved and respected by all. His early call from his labors was a loss to us and to those for whom he was laboring in the performance of his professional duties.

Resolved, That this Society learns with deep regret of the death that has removed from our midst Dr. W. R. Scurr.

Resolved, That the Wayne County Medical Society indorses all that has been said of Dr. Scurr in the above preamble, and that the same be spread upon the records of the Society.

Resolved, The secretary be and is hereby instructed to transmit to the family of our deceased brother these sentiments, together with an expression of our sympathy with them for their great bereavement.

Resolved, That the Society do, as a further mark of respect to his memory, now adjourn.

THE PUBLIC SERVICE.

Navy Changes. Changes in the Medical Corps of the U. S. Navy for the week ending March 6, 1897.

Asst. Surgeon M. S. Elliott, detached from instruction at naval laboratory, New York, and ordered to the U. S. S. "Columbia."

Change of Address.

Caldwell, J. R., from St. Clairville, Ohio, to West Liberty, W. Va.
Daly, W. H., from 135 5th Ave. to McClintock Building, 516 Market St., Pittsburg, Pa.
Frank, J., from Ozark to East Carondelet, Ill.
Hall, L. F., from St. Louis to Potosi, Washington Co., Mo.; Howland, Geo. T., from 815 to 825 Vermont Ave., Washington, D. C.
McKee, E. S., from 57 to 33 W. 7th St., Cincinnati, Ohio.

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